SAMSUNG SPR-5200

MODEL

SERVICE MANUAL

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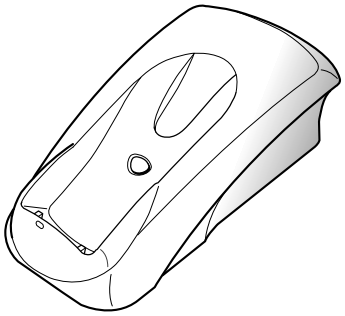
1. Product Specification

Item	Description
Frequency Range	1881.792MHz~1897.344MHz
Channels	120 Duplex Channels
Channel Separation	1,728MHz
Carrier Power	≤250mW (24dBm)
Modulation	GFSK
Frequency Stability	≤ ± 50kHz
Operation Time	Standby Mode : 120hr
	Talk Mode : 12hr
	Charging time : 15hr
Ambient Temperature	Normal : 15˚C~35˚C
	Extreme : 0˚C~40˚C
Humidity	0%~90%
Weight	Baseset : 159.1g
	Handset : 172.5g
Dimensions	Baseset : 176X91X50
	Handset : 156X57X27mm
Power Supply	Baseset Input : DC 9V 400mA, DC 9V 150mA
	Handset Input : 2.4V, 700mA (Ni-CAD)
Compliance	TBR 6
	TBR 10

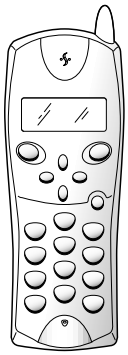
2. Operations & Installstion

2-1 Checking Parts

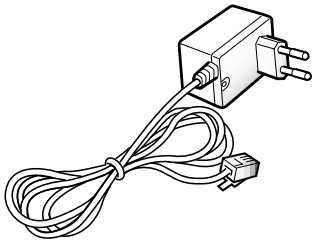
Once you have unpacked your phone, check to make sure that you have all the parts shown below. If any piece is missing or broken, please call your dealer.



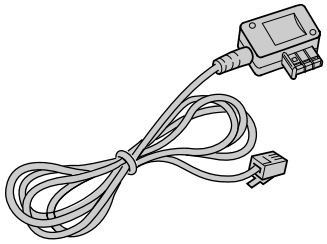
Base



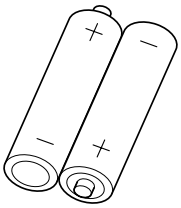
Handset



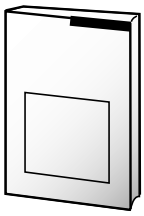
Adapter



Line Cord



Two AA Batteries
(Rechargeable Ni-Cd batteries)



Service Manual

2-2 Control Locations

2-2-1 Handset

Antenna

Earpiece

LCD window

button
Makes, answers, or ends a call.

INT button
Activates intercom communications.

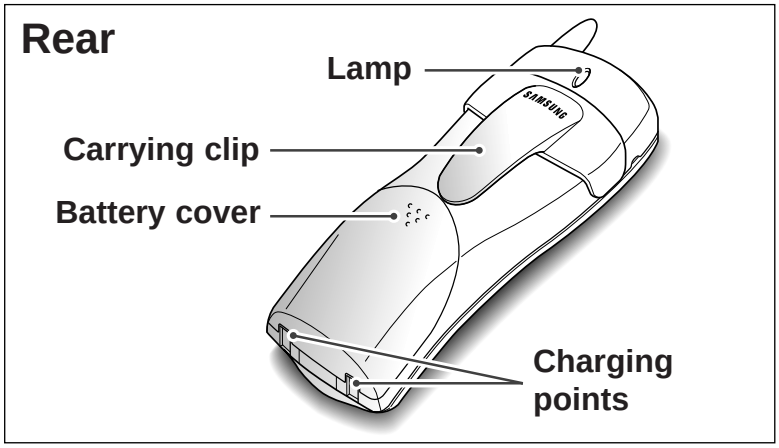
▲ or ▼ button
Scrolls through menus. Also adjusts volume.

C/R button
Clears characters from the display. Also performs a switch-hook operation such as call waiting.

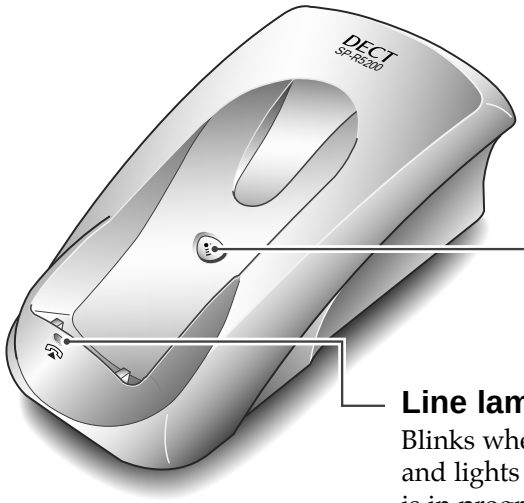
OK/ button
Confirms the selection. Also powers on/off.

button
Redials the last number you dialed. Also adds a pause when storing a number in memory.

Microphone



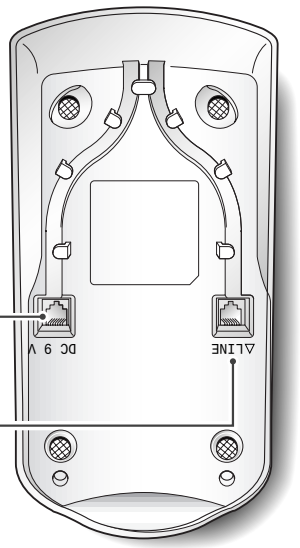
2-2-2 Base



Paging button
Allows you to page the handset. Also used to register a new handset with the base.

Line lamp
Blinks when a call comes in and lights steadily when a call is in progress.

Base Bottom



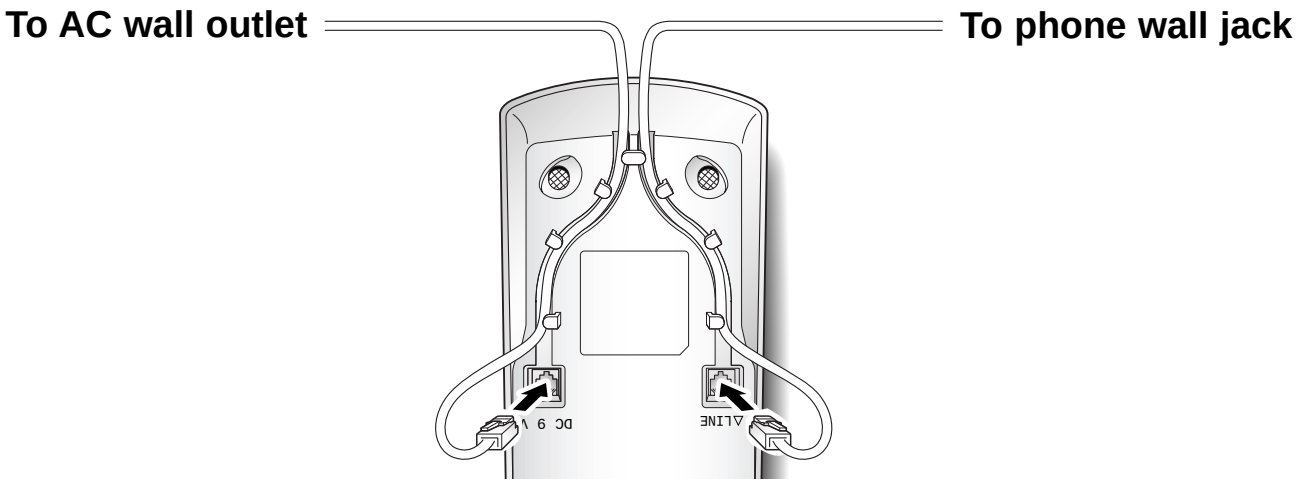
DC POWER socket

Phone Line socket

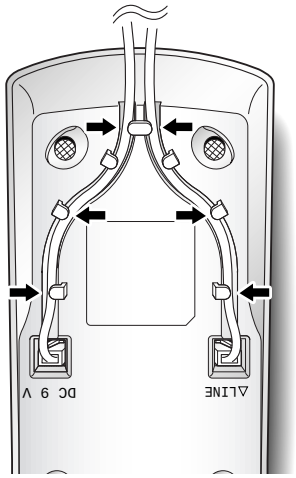
2-3 Connecting Lines

1. Connect one end of the telephone line cord to the phone line socket on the bottom of the base unit, and the other end to a standard phone wall jack.

2. Connect the modular end of the power adapter to the DC power socket on the bottom of the base unit, and the other end to a standard AC wall outlet.



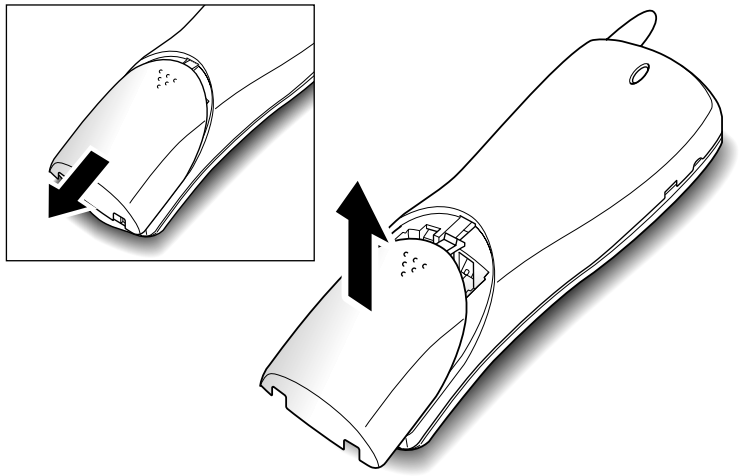
3. Route the cords through the recessed channel as shown.



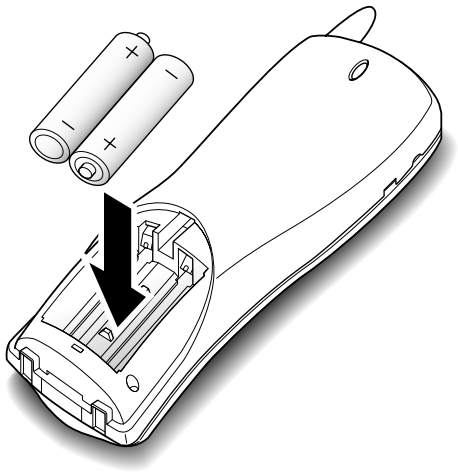
2-4 Installing Handset Batteries

The handset uses the two AA size rechargeable Ni-MH or Ni-Cd batteries supplied.

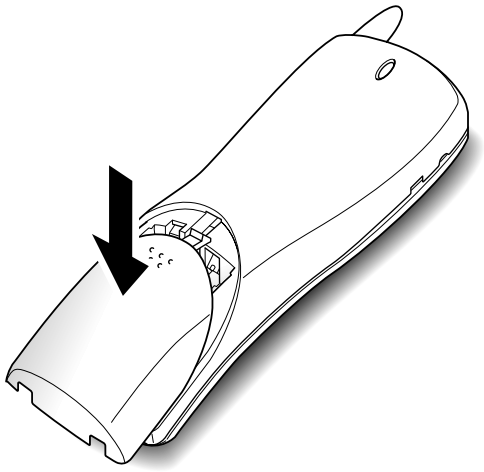
1. Slide the battery cover in the direction of the arrow, then lift it off.



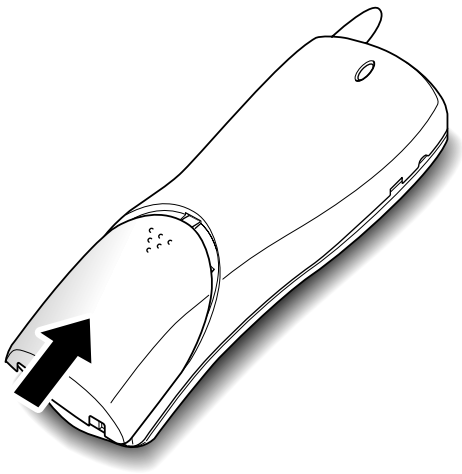
2. Remove old batteries if any, then insert new batteries observing correct polarity (+ , -). Reversing the orientation may damage the handset.



3. Replace the battery cover. Make sure that the cover is hooked in place.



4. Slide the cover up until it snaps shut.



Notes:

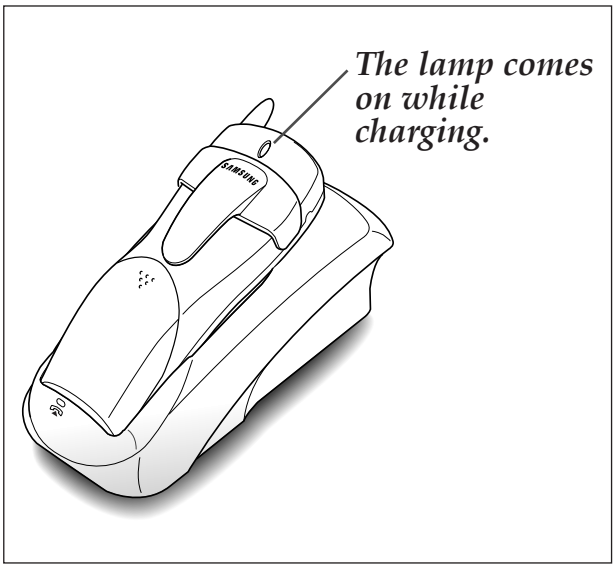
- The batteries need to be replaced if they do not recover their full storage capacity after recharging.
- When replacing batteries, always use good quality Ni-MH or Ni-Cd rechargeable AA size batteries. Never use other batteries or conventional alkaline batteries.

2-5 Charging the Handset

Before initial operation, you should fully charge the handset for more than 15 hours.

To charge the handset, simply place it on the base unit.
The handset can be charged either face up or face down.

Result: When the handset batteries are charging, the handset automatically turns on and the battery icon on the left corner of the display is scrolling.

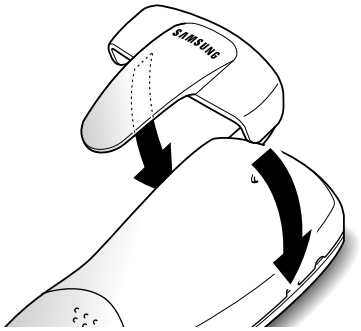


2-6 Using the Handset Carrying Clip

The supplied handset carrying clip allows you to conveniently carry the handset with you. It clips easily to your belt, waist band, or shirt pocket.

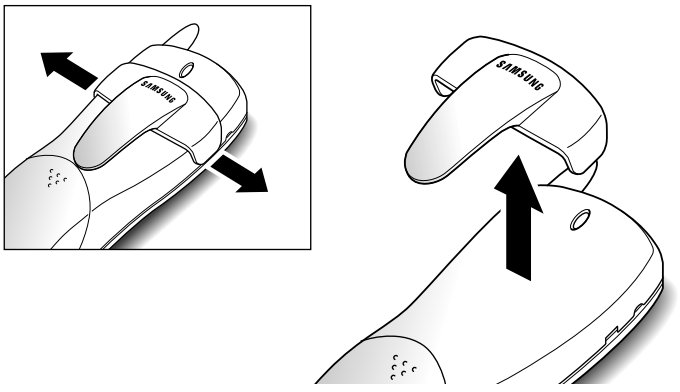
To Attach the Carrying Clip

Attach the carrying clip to the back of the handset. The carrying clip fits into the grooves on the back of the handset as shown. Make sure that the carrying clip locks into place.



To Remove the Carrying Clip

Insert a coin or screw driver into the slot along the edge of one of its arms, and twist to release. Then lift it off.

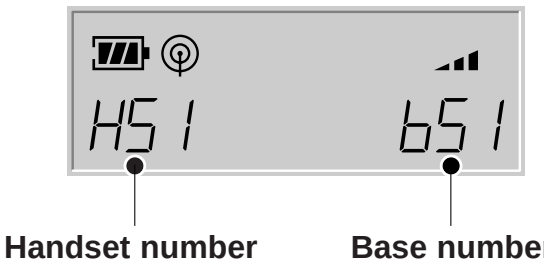


2-7 Turning the Handset On/Off

When you place the handset in the base unit to charge it, the handset automatically turns on. To turn the handset on or off in Standby mode, follow these steps:

1. To turn on the handset when the display is off, press **OK**/ⓘ button.

   Result: All segments in the LCD window turn on briefly, then the phone switches to the Standby mode. The phone is now ready for use. The display shows the handset number and the base number as shown below.

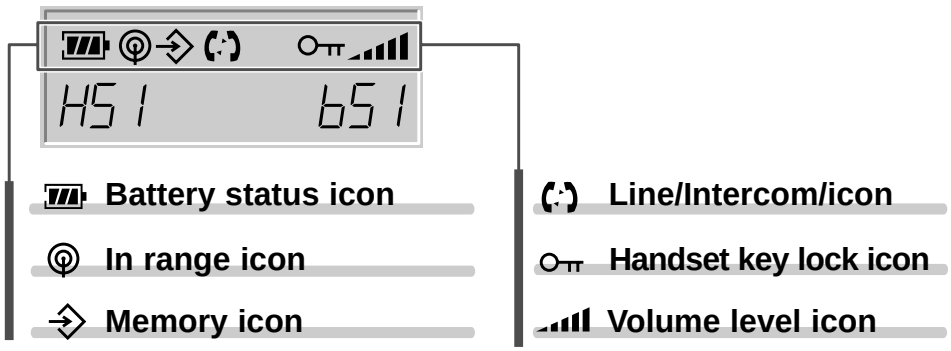


2. To turn the handset off, press and hold **OK**/ⓘ button for about three seconds until bYE appears in the display.

   Result: bYE appears, then the display turns off.

Notes:
- If you purchase an additional handset, you must register the handset to a base. If not, the display shows UNREGISTERED when you turn it on and the handset will not work. Refer to 'Register New Handset with Base' on page 2-33.
- Nothing will appear in the LCD window when battery power is very low. You should fully charge the handset before operation.

2-8 LCD Window Icon Descriptions



2-9 Choosing Dial Mode

In order to provide compatibility with most telephone systems, your phone can be set to either pulse-dialling (same as rotary), or tone dialling (DTMF). Your phone is preset to tone mode.

1. Press ▲ or ▼ button repeatedly until SET dIAL appears.

2. Press OK/ⓘ button to access the menu.

   Result: The display shows the current setting; 'TONE' or 'PULSE'.

3. Press ▲ or ▼ button to choose the desired mode.

4. Press OK/ⓘ button to confirm.

2-10 Making a Call

1. Pick up the handset and press ☎ button. You hear a dial tone.

2. Dial the desired number by using the number keypad.

Note:
You can store telephone numbers into one-digit memory cells (0-9) and dial the numbers using the assigned memory cell number. Refer to 'Memory Dialing' on
page 2-20.

3. When the other person answers, speak.

4. To end the call, either press ☎ button or replace the handset on the base unit.

Notes:
- If you turn the 'Call Time Display' feature on, the LCD window displays the call time. For details, see 'Call Time Display' on page 2-23.
- To make a call to the last number you dialed, use the 'Redial ' feature. For details, refer to 'Last Number Redial' on page 2-23.

You can enter the desired phone number in Standby mode, and then dial the number. This way of dialing allows you to make corrections to the number before dialing. Follow these steps:

1. Enter a telephone number. Check the number in the LCD window.

Notes:
- If you make a mistake while entering a number, press **C/R** button to clear the last digit and correct the number.
- If you press and hold **C/R** button for more than one second, all digits you have entered are cleared and the phone returns to the Standby mode.

2. When the number appears correctly, press ☎ button.

2-11 Camp On Busy

(This feature is available only when you have more than one handset)

This feature allows your handset to wait for connection to the telephone line currently engaged by another handset. Your handset rings when the telephone line becomes free.

1. You hear a short busy tone if you press ☎ button while another handset engages the telephone line.

   ***Result*:** Your handset is automatically camped on the line.

Note: To cancel this feature, press ☎ button any time before the line is free. The handset returns to Standby mode.

2. Your handset rings and the window displays FREE when the line becomes free.

3. Press ☎ button to engage the line while the handset rings. (Press the button within 10 seconds, or the handset returns to Standby mode.)

Notes:
- If an incoming call arrives while your handset rings to tell you the line is free, the 'Camp On Busy' feature is automatically cancelled and an incoming ring sounds.
- Several handsets can be camped on the busy line in chronological order. When the line becomes available to you, the LCD window displays FREE, and other handsets will display your handset number following the word BUSY.

2-12 Receiving a Call

1. When an external call comes in, the phone rings.

   Result: The icon on the display blinks, and the green lamp on the back of the handset flashes.

2. To answer the call, press button.

Or

If the handset is on the base unit, simply lift it up. You do not need to press button.

Result: You are connected and the base lamp light is steadily on.

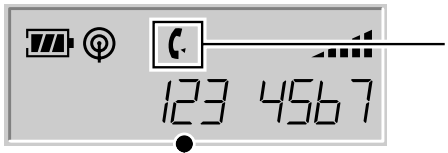
Note: button and **INT** button does not work for 3 seconds to prevent the phone from being disengaged, right after you lift the phone from the base unit to receive the call.

3. You can speak. To end the call, either press button or replace the handset on the base unit.

Note:
If you set the 'Ring Delay Time' feature to on, you can turn the handset ringer off for the specified time when a call comes in and other handsets are ringing. Refer to 'Setting Ring Delay Time' on page 2-27.

2-13 Caller ID Display

Caller ID is a feature available on your phone which helps you to know who is calling by displaying the caller's number when the phone rings. Contact your service provider to activate this feature.



This icon blinks when the phone rings.

the caller's number

Notes:
• If there is a missed call (the call not answered), the missing call number appears in the display.

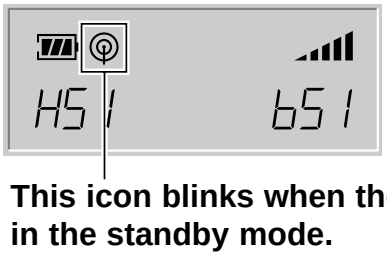
There are two missed calls.

Your phone keeps track of the last 10 calls received. Refer to 'Call Log' on page 2-21 to check and dial the numbers.

• If a caller has chosen to withhold their number, PRIVATE Id is displayed.
• If a caller's number is not available, you will see Id NOT RECV in the display.

2-14 Out of Range Indication

If the handset is too far from the base unit, the handset cannot properly engage the telephone line, and the icon blinks in the LCD window.

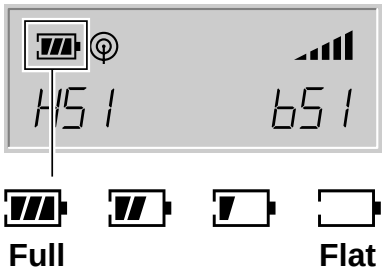


This icon blinks when the handset is out of range in the standby mode.

If you move out of range during a call, the telephone line might be disconnected and the handset returns to Standby mode. Check if the icon blinks in the LCD window. If so, move the handset closer to the base unit.

2-15 Battery Level Indicator

A icon is continuously displayed in the upper line of the LCD window. The icon shows the level of your battery. The more bars you see, the more power you have left.

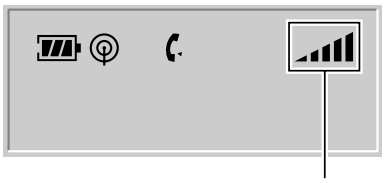


When the battery is weak and a few minutes of talk time remain, you will hear a warning tone and the icon blinks.

When the battery becomes too weak for the phone to operate, the handset will automatically turn off. Place the handset on the base unit to charge the handset batteries.

2-16 Adjusting Voice Volume

During calls, ▲ or ▼ button affects the ear piece volume. You can adjust the volume from level 1 to 5 , and it is preset to level 3. The voice volume is displayed as bars on the upper right corner of the LCD window.
The more bars you see, the louder the volume is.



Ear piece volume indicator

2-17 Choosing Ring Type

You can define your own ringing sound. Six ring types are available.

1. Press ▲ or ▼ button repeatedly until RING TYPE appears.

2. Press OK/⏻ button.

3. Press ▲ or ▼ button to choose the ring type you want.

   Result: Each time you press ▲ or ▼ button, the handset sounds the ring you have chosen.

4. Press OK/⏻ button to confirm.

2-18 Adjusting Ring Volume

1. Press ▲ or ▼ button repeatedly until RING LEVEL appears in the display.

2. Press OK/ⓘ button to access the menu.

   Result: The current ring level is displayed. You can hear the volume loudness.

3. Press ▲ or ▼ button to choose the volume level you want.

   Result: You can adjust the volume from level 1 to 3. The higher, the louder. You can also turn the ringer OFF. Each time you press. π or † button, the handset sounds its selected loudness. The default is 'level 2'

4. Press OK/ⓘ button to confirm.

Note: Setting 'Level Off' turns the ringer off. When a call comes in, only the lamp on the back of the handset blinks and the icon in the window will blink.

2-19 Key Lock

If you turn this feature on, all buttons except for OK/ⓘ button will be locked and not operate at all.

When a call comes in, you can answer calls by using ☎ button or INT button. But when you finish the call, the phone returns to the lock mode.

This feature is useful to avoid accidental key pressing.

1. To turn the feature on, press and hold OK/ⓘ button for about 1.5 seconds until the 🔑 icon appears in the display.

2. To turn the feature off, press and hold OK/ⓘ button for about 1.5 seconds until the 🔑 icon disappears in the display.

Notes:
- If power failure occurs, the 'Key Lock' feature is automatically cancelled.
- Do not hold OK/ⓘ button for more than three seconds, or the handset will turn off.

2-20 Memory Dialing

2-20-1 To Store (or Edit) Numbers In Memory

You can store the most frequently used phone numbers into one-digit memory cells (0-9).

1. Press ▲ or ▼ button repeatedly until STORE PHONE appears in the display.

2. Press OK/ⓘ button.

   Result: The first memory cell (0) containing a phone number, if already stored, is displayed.

3. If you want to find another memory cell, press ▲ or ▼ button and choose the cell under which you want to save a number.

4. Enter the desired number (up to 24 digits).

   Note: If you make a mistake while entering a number or if you want to edit a number, press the C/R button. Each time you press the button, the last digit is cleared. To clear all digits, press and hold the C/R button. Then enter the correct number.

5. Press OK/ⓘ button to confirm.

2-20-2 Using a Pause

If you want to insert a dialing pause between numbers, press the ◔ button.

Result: P appears at the pause entry. A pause is useful when you access an interactive voice response system, such as an automated banking system.

To Dial a Number In Memory

Press and hold the cell number for more than one second.

Result: The display shows the phone number stored into the selected cell and the phone automatically dials the number.

To Dial a number In MEMORY

2-20-3 To Search For a Number In Memory

1. Press ▲ or ▼ button repeatedly until PHONE NO appears in the display.

2. Press OK/ⓘ button.

3. Scroll through the memory and choose the desired number by using ▲ or ▼ button.

   Result: The display shows the phone number stored under the selected cell.

4. Press ☎ button.

Result: The number is automatically dialed.

2-20-4 To Erase All Numbers In Memory

If you reset the handset, all numbers stored in memory are erased. Refer to 'Reset' on page 2-32.

2-21 Call Log

When you receive a call, the caller's phone number is shown on your phone's display if it is available from the network on which the call was made. The last 10 numbers received are stored in your phone and you can view the list and dial the numbers.

2-21-1 To View and Dial the Numbers

1. Press ▲ or ▼ button repeatedly until CALL LOG appears.

2. Press OK/ⓘ button.

Result: The LCD window shows the last caller's number, and the date and time when the call was received if the information has been transmitted from the network with the caller's number. If there is no number received, EMPTY is displayed.

3. Scroll through the memory and choose the desired number by using ▲ or ▼ button.

4. Press ☎ button to dial the selected number.

Notes:
- Your phone stores up to 20 digits for each caller's number. If there are hidden digits not displayed, the former part scrolls to the left and the latter part of the number appears.
- The last number is stored in the memory cell '0'. When a new call is received, the previous number is shifted to the next cell '1', allowing the new number to be stored in this position. The oldest number is automatically erased.

2-21-2 To Erase All Numbers Received

1. Press ▲ or ▼ button repeatedly until CLR CALL LOG appears.

2. Press OK/ⓘ button.

Result: You hear a beep and the phone returns to the Standby mode.

2-22 Last Number Redial

Your phone allows you to call the most recently dialed numbers again. The phone stores the last 10 numbers you called.

2-22-1 To View and Dial the Numbers

1. Press ◑ button.

   Result: The LCD window displays the last number you dialed.

2. If you want to scroll through the memory, press ▲ or ▼ button until you find the desired number you want to call.

3. Press ☎ button to dial the number.

Notes:

- If there is no number dialed, the EMPTY message is displayed.
- Each time you dial a new number, the oldest number stored in the redial memory is automatically erased, and the redial memory is updated.
- You can modify the number displayed before pressing ☎ button by using C/R button.
- If you press ◑ button, followed by ☎ button, the phone dials the last number immediately.

2-22-2 To Erase All Numbers in Redial Memory

1. Press ▲ or ▼ button until CLR REDIAL appears in the display.

2. Press OK/ⓘ button.

   Result: All numbers are cleared.

2-23 Call Time Display On/Off

If you turn the feature on, the handset automatically times the duration of calls. The handset displays the call duration both during your call and also for a few seconds after your call is completed. The feature is preset to 'OFF'.

1. Press ▲ or ▼ button repeatedly until CALL TIME appears.

2. Press OK/ⓘ button.

   Result: The display shows the current setting.

3. Press ▲ or ▼ button to turn the feature On or Off.

4. Press OK/ⓘ button to save the selected mode.

2-24 Key Beep On/Off

The feature is preset to 'ON' at factory. You can set your handset not to sound the key beep each time you press a button.

1. Press ▲ or ▼ button repeatedly until KEY bEEP appears.

2. Press OK/ⓘ button.

   Result: The display shows the current setting.

3. Press ▲ or ▼ button to turn the feature on or off.

4. Press OK/ⓘ button to save the selected mode.

2-25 Base Number Display On/Off

This feature allows the phone to display the base number
currently in use while in Standby mode. The feature is preset to 'On' at factory.

1. Press ▲ or ▼ button until bASE nO appears in the display.

2. Press OK/ⓘ button.

   Result: The display shows the current setting.

3. Press ▲ or ▼ button to change the current status.

4. Press OK/ⓘ button to save the selected mode.

2-26 Tone Dial Switchover

To access certain services such as voice mail or interactive telephone system features, it is necessary to use tone dialing. When your phone is set to the pulse mode, DTMF dialing is available.

1. Press the asterisk (*) while on the phone in the pulse dial mode.

   Result: Your phone is converted to the tone dial mode temporarily.

2. When you finish the call, the phone automatically returns to the pulse mode.

   Note: If you press the C/R button during a call, the phone also returns to the pulse mode.

2-27 Setting Ring Delay Time

If you activate the ring delay time, your handset will not ring for the specified delay time while other handsets are ringing. If you wish, you can answer the call within the delay time on your handset.

1. Press ▲ or ▼ button repeatedly until RING dELAY appears.

2. Press OK/ⓘ button.

   Result: The display shows the current status; for example, dELAY OFF or dELAY 60 SEC .

3. Press ▲ or ▼ button until you choose the desired delay time.

   Result: You can choose from 'Off' to 60 seconds using increments of 5 seconds. Selecting 'Off' deactivates the feature.

4. Press OK/ⓘ button to save the setting.

2-28 Changing Flash Time (Only for German Model)

This feature allows you to change the flash time.

1. Press ▲ or ▼ button until FLASH EINST appears in the display.

2. Press OK/ⓘ button.

   Result: The display shows the current status; for example, FLASH (90 ms) or LANGER FLASH (250ms)

3. Press ▲ or ▼ button to change the setting.

4. Press OK/ⓘ button to save the setting.

Note: The factory default is set to 'Langer Flash'.

2-29 Changing PIN (Personal Identification Number)

The PIN is required when you bar calls or register handsets to a base unit. The PIN is preset to '0000' at factory. You can change the PIN code.

1. Press ▲ or ▼ button repeatedly until PIN CHANGE appears in the display.

2. Press OK/ⓘ button.

3. Enter the currently used PIN code.

   Result: The LCD window dose not display the PIN code you entered in order to maintain secrecy.

   Note: If you enter a wrong PIN code, your phone returns to Standby mode.

4. Enter the new PIN code you want.

   Note: It must be 4 digits. If you enter a wrong number, you can correct the number by using the C/R button.

5. Press OK/ⓘ button.

6. Enter the new PIN code again to confirm the number.

   Note: If you change the PIN code and then forget it, you will have to contact service center.

2-30 Registered Recall

The C/R button is used in conjunction with special services such as 'Call waiting' which may be offered by your telephone company. You can place a new call directly after a call or transfer a call to another extension under PABX, using this feature.

To send a flash, simply press C/R button while the line is engaged.

Result: The display shows F .

2-31 Barring Calls

- It is possible to set the phone to restrict numbers that can be dialed. The phone cannot dial a phone number beginning with the specific numbers that you specify.
- You can set up to 4 restricted numbers containing up to 4 digits each.
- If you turn the feature on, the handset requires a PIN code when the restricted number is dialed. If you enter a wrong number, your phone returns to the Standby mode. If you enter a correct PIN, you can make calls.

  Note: You can make an emergency call (112, 999) even when you activate the outgoing call barring option.

2-31-1 To Set Call Barring Numbers

1. Press ▲ or ▼ button repeatedly until CALL bARRING appears.
2. Press OK/ⓘ button.
3. Enter the PIN code.

   Result: If the correct PIN is entered, the first barring cell containing a restricted number, if already registered, appears.
4. If you want to choose another barring cell, press ▲ or ▼ button.

   Result: Each time you press the button, 'no 1' through 'no 4' appears.
5. Enter the number you want to restrict. This can be up to four digits.

   Note: If you make a mistake while entering a number to restrict, use the C/R button to delete the last digit, then correct the number.
6. Press OK/ⓘ button when you finish entering the number.

2-31-2 To Deactivate a Specific Call Barring Number

You can selectively deactivate restricted numbers by erasing them.

1. Press ▲ or ▼ button repeatedly until CALL bARRING appears.
2. Enter the PIN code.

   Result: The first barring cell containing a restricted number, if already registered, appears in the display.
3. If you want to choose another barring cell, press ▲ or ▼ button.
4. When the cell contains the restricted number you want to erase appears in the display, press and hold C/R button.
5. Press OK/ⓘ button to confirm.

2-32 Reset

If you reset the handset, all the user-selectable features return to the manufacturer's default status as shown below:

- Voice Volume: Level 3
- Ring Level: Level 2
- Ring Type: Type 1
- Key Beep: On
- Call Time display: Off
- Call Barring: Off
- Ring Delay: Off
- Auto Find: Off
- Base Number display: On
- PIN Number: 0000

Note: Dial type is not changed if you reset the handset.

1. Press ▲ or ▼ button repeatedly until HS RESET appears.

2. Press OK/ⓘ button.

3. Enter the PIN code.

4. Press OK/ⓘ button.

2-33 Registering New Handset with Base

Up to six handsets can be registered and operated from your base unit. The system allows you to make internal calls between two handsets while a third is making an call.

The supplied handset with the base unit is already registered as handset 1. Each additional handset you purchase must be registered to the base unit.

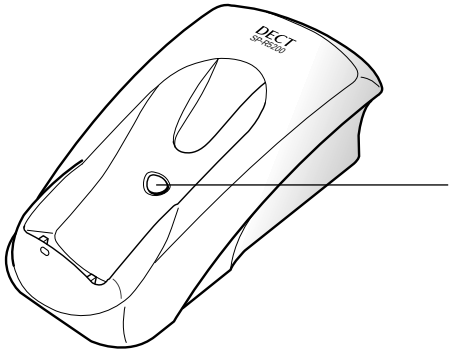
2-33-1 To Register a Handset

1. Press ▲ or ▼ button repeatedly until REGISTER HS appears in the display, then press OK/ⓘ button.

2. Enter the PIN code, then press OK/ⓘ button.

3. Press ▲ or ▼ button repeatedly to choose the base number you want to specify for the base.

4. Press and hold the button on the base unit for more than 3 seconds until the lamp on the base unit blinks.



5. Press OK/ⓘ button on the handset.

Result: WAIT appears for a short time, then the LCD window displays the ID of the base unit.

6. Press OK/ⓘ button.

Note: Do not press ▲ or ▼ If there is another base which is accidentally ready to accept the handset, the base ID will be shown in the display. To exit, press and hold C/R button, then start over again.

7. Enter 9234, the Authentication Code, which is preset at factory.

Result : When the registration is properly completed, the LCD window displays the base number on the right corner and the handset number on the left corner of the display.

8. Press OK/ⓘ button.

Note: If you have registered the handset to several bases, and the base number you select at step 3 is already used for another base, OVERWRITE warning appears. If you press OK/ⓘ button, the old information is cleared and the base number will be newly used for your newly selected base. To keep old information, press and hold C/R button to cancel the setting, then start over again with a different base number.

2-33-2 To Remove a Handset Registered to the Base Unit

1. Press ▲ or ▼ button repeatedly until REMOVE HS appears in the display.

2. Press OK/ⓘ button.

3. Enter the PIN code.

4. Press OK/ⓘ button.

   Result: The base number appears in the display.

5. Press OK/ⓘ button.

   Result: UNREGISTERED is displayed. Now, you cannot use the handset with the base unit unless you register the handset back to the base unit.

Note: If the handset is registered to more than one base unit, and you want to use the handset with other base units, you have to choose one of the other bases available.

2-34 Paging

You can page any registered handset from the base unit. Using this feature, you can find where the handsets are.

Press the button on the center top of the base unit.

Result: All handsets registered with the base will ring four times.

2-35 Intercom Between Handsets

(This feature is available only when you have more than one handset)

If you have multiple handsets registered with the base, two handsets can talk to each other on an internal intercom call, while a third handset can make an external call.

1. Press INT button on your handset.

   Result: The icon blinks in the display.

2. Enter the number of the handset (1-6) you want to page.

   Result: The paged handset rings. The LCD window on the paged handset displays the paging handset number in the right corner.

   Notes:
   - If you enter a handset number that does not exist, you hear a busy tone.
   - To cancel intercom, press button or INT button.

3. To answer the call from you, the paged handset should press either INT or button. If the handset is on the base unit, simply lift it up.

4. When the paged handset answers you, speak.

5. To end the call, press either INT or button.

Notes:
- If an external call comes in during an intercom conversation, you will hear beeps. When you hear the low beeps, finish the intercom call by pressing INT or button. The external ring sounds. Press button to answer the call
- If you want to put an external call on hold and want to speak to another internal handset, refer to 'Call Transfer' on page 2-36.
- When you make an intercom call, if BUSY appears in the display and you cannot communicate with the paged handset, the paged handset is engaged with an outside party. Your handset is automatically camped on to the busy station, and when the busy station becomes free, both handsets will ring.
- In step 3, if the paged person lift the handset up to answer the call from you, they do not need to press INT or button. Those buttons do not work for 3 seconds to prevent the phone from being disengaged, right after the handset is lifted from the base unit.

2-36 Call Transfer

(This feature is available only when you have more than one handset)

You can transfer a call from one handset to another.

1. During a telephone conversation, press INT button.

   Result: Your caller will be put on hold and will hear music.

   The icon blinks in your display.

2. Enter the number (1 through 6) of the handset to which you want to transfer the call.

   Result: The paged handset rings.

3. To answer the call from you, the paged handset should press either INT or button. If the handset is on the base unit, simply lift it up.

4. You can speak with the handset (Intercom).

5. To transfer the external call to the paged handset, press button.

   Or

   To cancel the call transfer and talk with the outside party again, press INT button.

2-37 Operating with Additional Base Unit

The SP-R5200 handsets may be used with up to four base units. To use the handset with more than one base unit, you must register the handset at each base unit. Refer to 'Registering New Handset with Base' on page 2-33.

2-37-1 To Find the Base Unit Automatically

- With the 'Auto Find' feature set to 'ON', if you are moving around, and lose contact with the base unit, the handset will automatically find the first available base unit.
- The feature is preset to 'OFF'.

1. Press ▲ or ▼ button repeatedly until AUTO FIND appears.

2. Press OK/⏻ button.

   Result: The display shows the current setting; On or Off.

3. Press ▲ or ▼ button to choose 'On' or 'OFF'.

4. Press OK/⏻ button to confirm.

2-37-2 To Select the Base Unit Manually

You can select a base unit through which you want your handset to operate.

1. Press ▲ or ▼ button repeatedly until SELECT BASE appears in the display.

2. Press OK/⏻ button.

   Result: The display shows the currently selected base number.

3. Press ▲ or ▼ button repeatedly to choose the desired base unit.

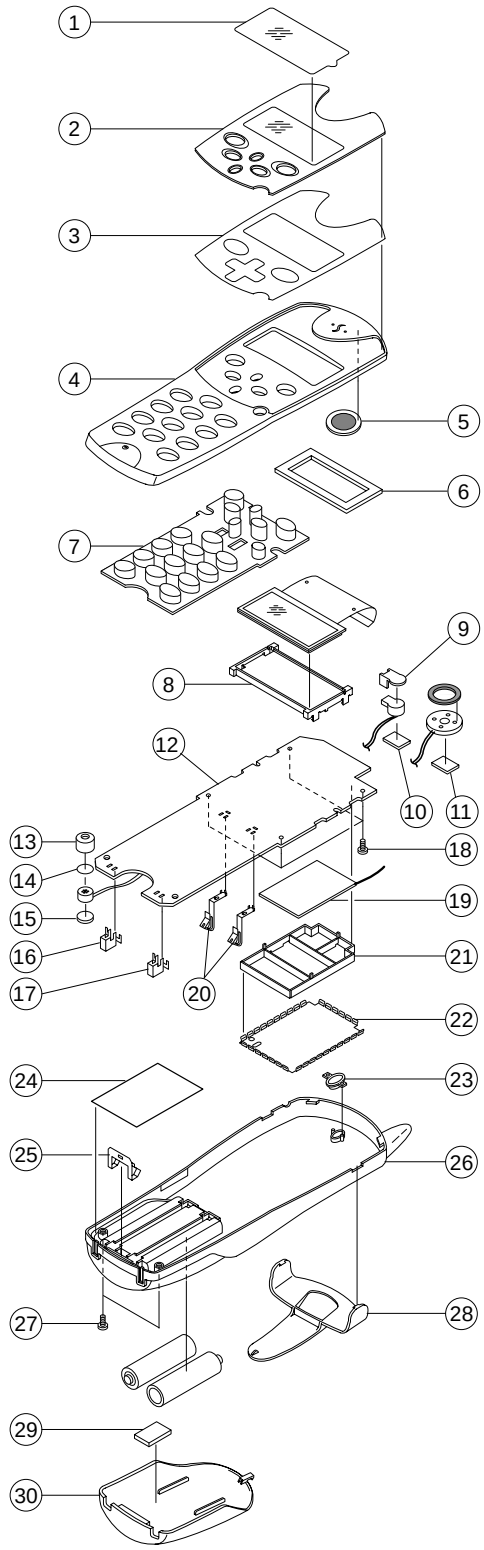
4. Press OK/⏻ button to confirm.

3. Exploded View & Parts List

3-1 SP-R5200 HANDSET P/L

Location No	Code No	Description	Specification	Q'ty
1	GG72-00015A	WINDOW-BOHO		1
2	GG72-00007A	WINDOW-LCD		1
3	GG74-00002A	TAPE-WINDOW		1
4	GG72-00002A	FRONT-COVER		1
5	GG73-00004A	UNIT-RUBBER		1
6	GG74-00004A	SPONGE-LCD		1
7	GG73-00001A	KEY-PAD		1
8	GG72-00006A	HOLDER-LCD		1
9	GG73-00002A	HOLDER-BUZZER		1
10	GG74-10586A	SPONGE-UNIT		1
11	GG74-10564A	SPONGE-SPEAKER		1
12	GG92-00927A	SUA. LOGIC-BOARD		1
13	GG73-00003A	HOLDER-MIC		1
14	GG74-00005A	MIC-COVER		1
15	GG74-00007A	SPONGE-MIC		1
16	GG71-00001A	CONTACT-BASE(A)		1
17	GG71-00002A	CONTACT-BASE(B)		1
18	6003-000195	SCREW-TAPTITE	TAPTITE, PH, +, M2X4	4
19	GG92-00925A	SUA. RF-BOARD		1
20	GG71-00003A	TERMINAL-BATT(A)		2
21	GG71-00005A	SHIELD-FRAME		1
22	GG71-00006A	SHIELD-CAN		1
23	GG72-00008A	LENS-REMOTE		1
24	GG68-00048A	COVER-SHEET		1
25	GG71-00004A	TERMINAL-BATT(B)		1
26	GG72-00003A	REAR-COVER		1
27	6001-001021	SCREW-MACHINE	MACHINE, B, BH, +, M2X6	2
28	GG72-00005A	BELP-CLIP		1
29	GG74-00003A	SPONGE-BATTERY		1
30	GG72-00004A	BATTERY-COVER		1

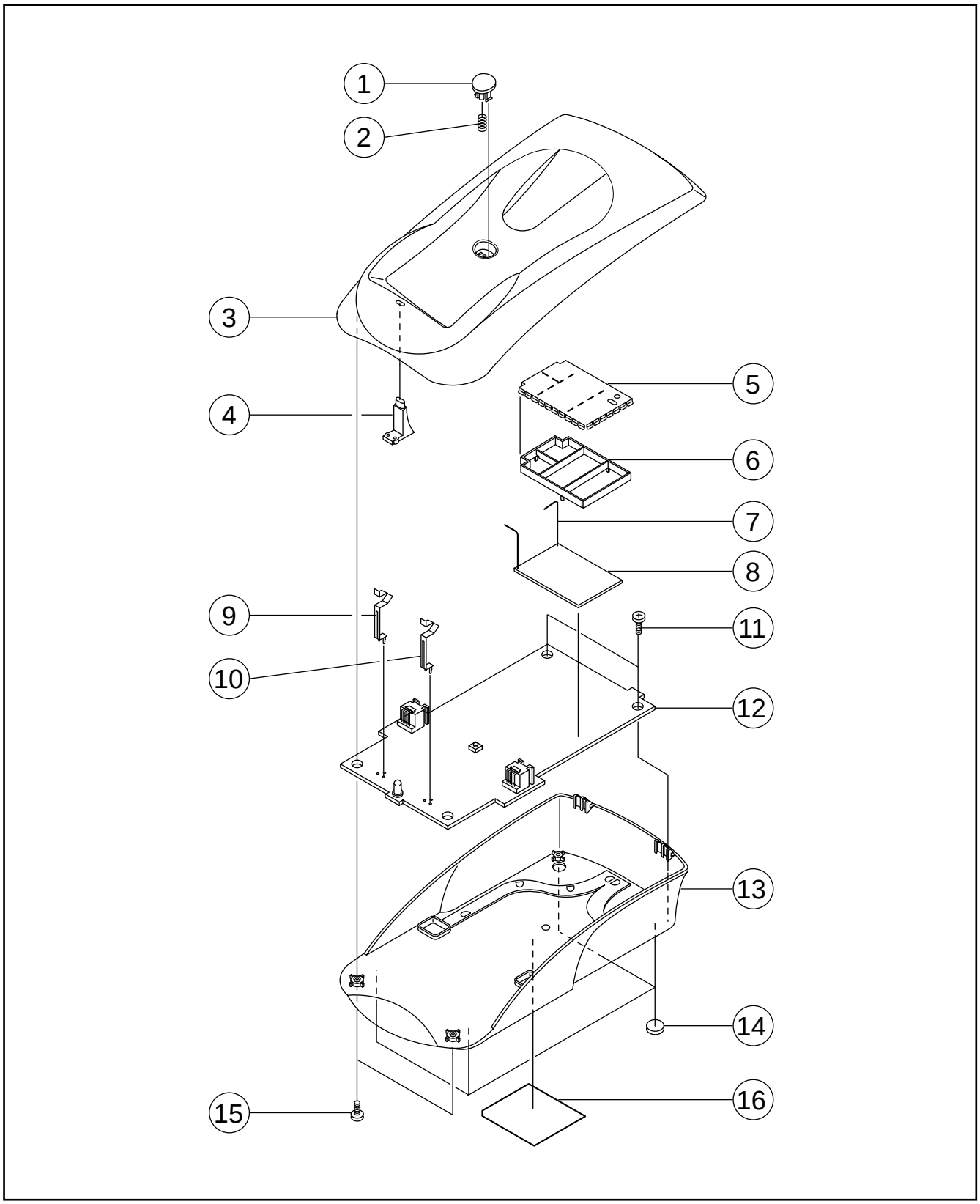
3-2 SP-R5200 HANDSET Exploded View



3-3 SP-R5200 BASE P/L

Location No	Code No	Description	Specification	Q'ty
1	GG72-00011A	KEY-TOP		1
2	GG61-00001A	SUPPORT-SPRING		1
3	GG72-00009A	BASE-UPPER		1
4	GG72-00012A	LENS-BASE		1
5	GG71-00006A	SHIELD-CAN		1
6	GG71-00005A	SHIELE-FRAME		1
7	GG71-00010A	ANTENNA-WIRE		2
8	GG92-00926A	SUA. RF-BOARD		1
9	GG71-00008A	BATT-TERMINAL(A)		1
10	GG71-00009A	BATT-TERMINAL(B)		1
11	6002-000352	SCREW-TAPTITE	TAPTITE, PWH, +, 2, M2.5X4	2
12		SUA. LOGIC-BOARD		1
13	GG72-00010A	BASE-LOWER		1
14	GG73-00005A	FOOT-RUBBER(A)		4
15	6003-001051	SCREW-TAPTITE	TAPTITE, B, BH, +, M2.6X8	2
16	GG68-00027A	LABEL(R) ID-BASE		1

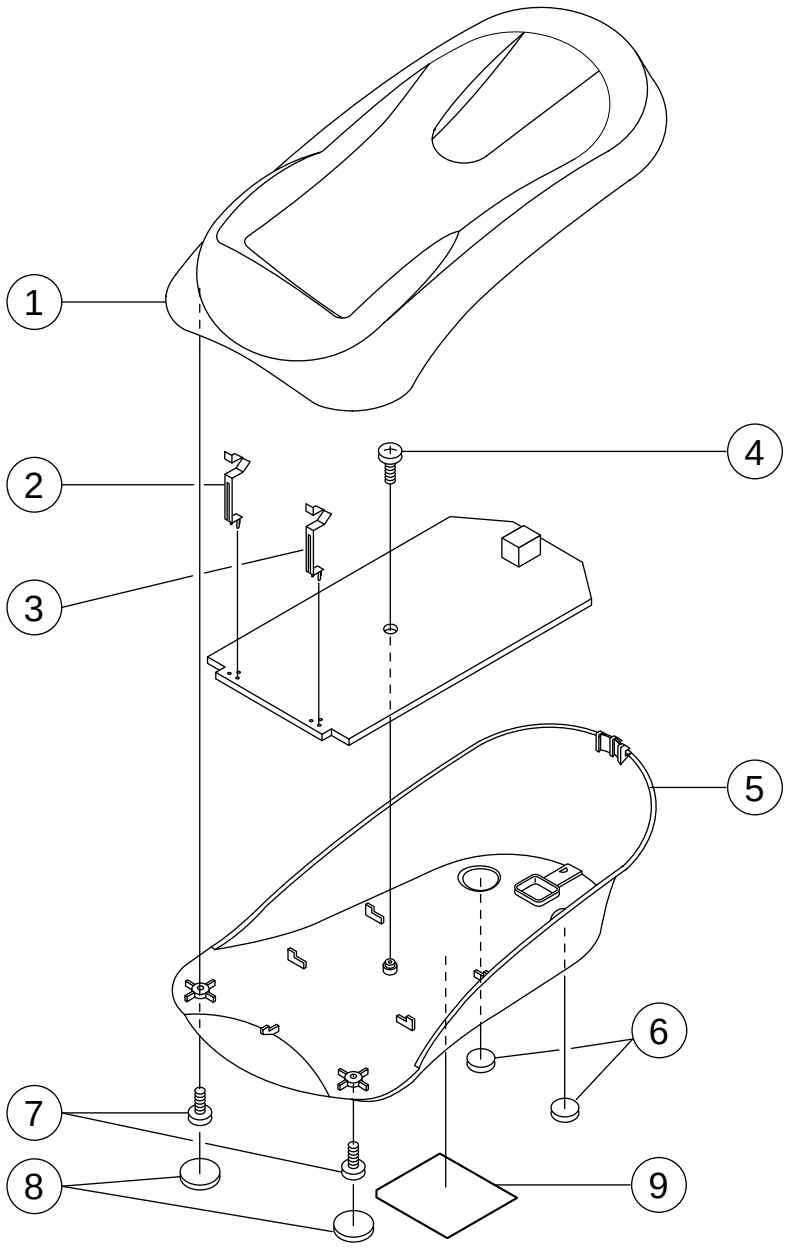
3-4 SP-R5200 BASE Exploded View



3-5 SP-R5200 CHARGER P/L

Location No	Code No	Description	Specification	Q'ty
1	GG72-00013A	CHARGER-UPPER		1
2	GG71-00008A	BATTERY-TERMINAL(A)		1
3	GG71-00009A	BATTERY-TERMINAL(B)		1
4	6002-000352	SCREW-TAPTITE	TAPTITE, PWH, +, 2, M2.5X4	1
5	GG72-00014A	CHARGER-LOWER		1
6	GG73-00005A	FOOT-RUBBER(A)		2
7	6003-001051	SCREW-TAPTITE	TAPTITE, B, BH, +, M2.6X8	2
8	GG61-40101A	FOOT-RUBBER		2
9	GG68-00028A	LABEL ID-CHARGER		1

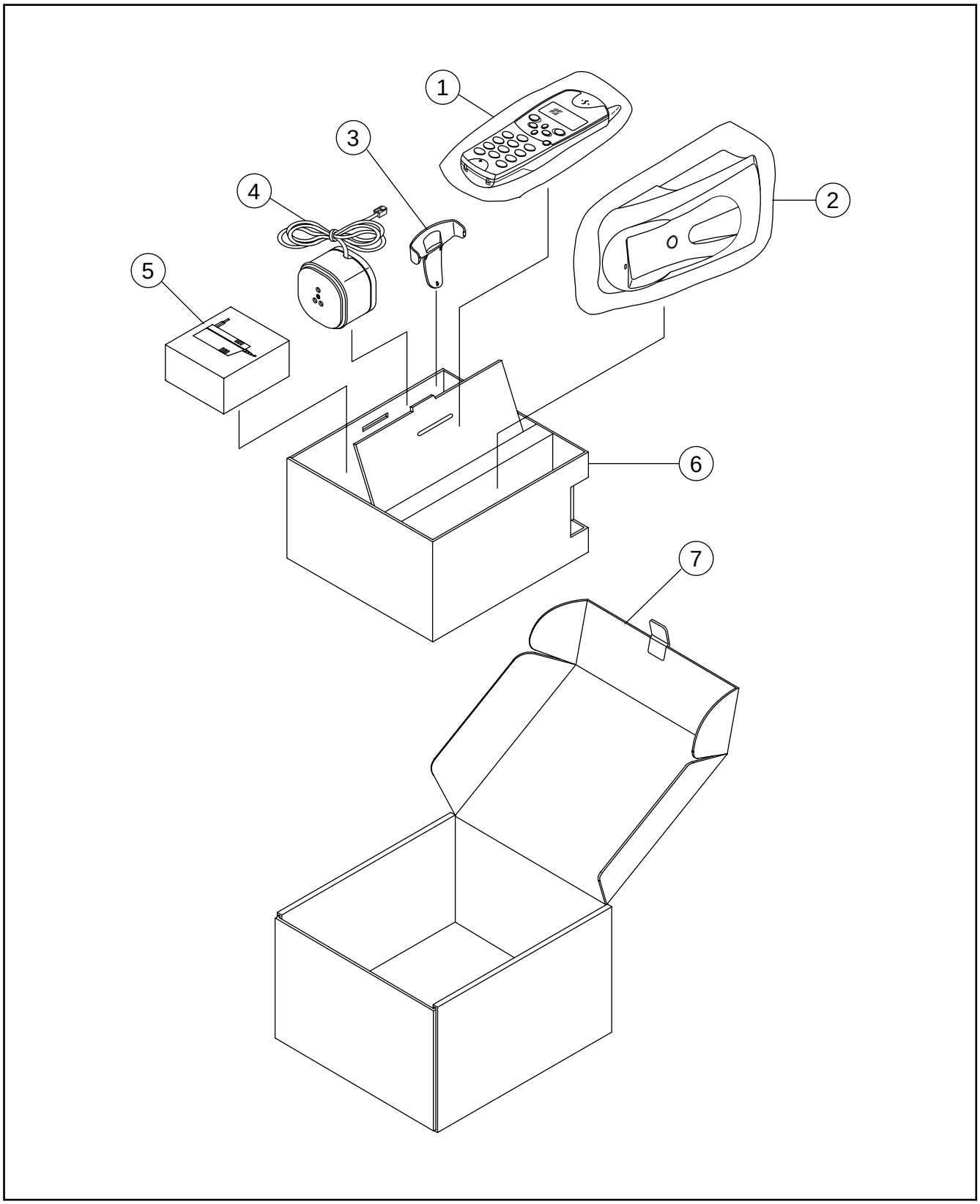
3-6 SP-R5200 CHARGER Exploded View



3-7 SP-R5200 PACKING P/L

Location No	Code No	Description	Specification	Q'ty
1	GG97-01713A	H/S HOUSING ASSY		1
2	GG97-01739A	BASE HOUSING ASSY		1
3	GG72-00005A	BELT-CLIP		1
4		TEL LINE		1
5	GG69-10874A	BOX-ADAPTOR		1
6		BOX-INNER		1
7		BOX-UNIT		1

3-8 SP-R5200 PACKING Exploded View



4. Electrical Parts List

4-1 SP-R5200 Hand Logic Parts List

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
0402-001075	MBRO520LT1	MOTORORA	1	D	15	DIODE
0404-000116	BAS40-04	SIEMENS	1	D	18	DIODE
0406-001012	SM12	SEMTECH	2	ZD	1, 2	TVS-DIODE
0407-000122	1SS226	KEC	5	D	7, 8, 12, 13, 9	SW-DIODE
0501-000457	MMBT2222A	SEC	2	Q	1, 3	TR-NPN
0501-000462	MMBT2907A	SEC	2	Q	6, 8	TR-PNP
0501-000526	2SD999	NEC	2	Q	2, 9	TR
0505-001159	MGSF3454VT1	MOT	1	Q	7	TR
0601-001273	333UGD-A	EVER	1	D	6	GREEN LED
1103-001023	AT24CO8N-10S1-2.7	ATMEL	1	U	10	EEPROM
1205-001626	PMB5720	SIEMENS	1	U	11	BMC
GG07-00001A	SDS64107B	PEI	1	U	9	LCD
2007-00763	RC1608F1184CS	SEM	1	R	55	0.1, 2012
2007-000070	MCR03EZUJ000	SEM	6	R	28, 35, 36, 44, 45, 47	0
2007-000074	MCR03EZHJ101T	ROHM	1	R	5	100
2007-000293	RC3216J101CS	SEM	2	R	3, 4	100, 1/8W
2007-000078	RC1608J102CS	SEM	3	R	9, 36, 48	1K
2007-000079	RC1608J182CS	SEM	2	R	42, 43	1K8
2007-000086	RC1608J562CS	SEM	1	R	46	5K6
2007-001175	RC1608J822CS	SEM	1	R	14	8K2
2007-000090	MCRO3EZHJ103T	ROHM	2	R	13, 40	10K
2007-000094	RC1608J223CS	SEM	2	R	37, 38	22K
2007-000129	RC1608J273CS	SEM	3	R	21, 25, 50	27K
2007-000805	RC1608J363CS	SEM	2	R	22, 31	36K
2007-000939	RC1608F473CS	SEM	1	R	8	47K, 1%
2007-001038	RC1608F563CS	SEM	1	R	47	56K,1%
2007-000100	RC1608J683CS	SEM	1	R	32	68K
2007-000102	MCRO3EZHUJ104	ROHM	2	R	23, 29	100K
2007-000336	RC1608J124CS	SEM	1	R	10	120K, 1%
2007-000104	RC1608J154CS	SEM	2	R	20, 26	150K
2203-001109	GRM39COG682D50PT	MURATA	4	C	44, 60, 62, 63	6.8pF
2203-000280	GRM39COG100D50PT	MURATA	10	C	31, 32, 33, 34, 35, 36, 37, 38, 39, 56	10pF
2203-000426	CL10C050CBNC	SEM	1	C	13	18pF
2203-000315	GRM39COG121J50PT	MURATA	2	C	51, 53	120pF
2203-000440	GRM39COG102J50PT	MURATA	1	C	52	1nF
2203-000257	GRM39X7R103K50PT	MURATA	17	C	15, 16, 17, 18, 19, 20, 22, 23, 24	10nF
					25, 26, 27, 29, 47, 48, 50, 59	
2203-000799	GRM40X7R333K25PT	MURATA	1	C	7	33nF

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
2203-001141	GRM40X7R683K25PT	MURATA	7	C	8, 9, 10, 11, 40, 41, 68	68nF, 2012
2203-005148	GRM40X7R104K25PT	MURATA	4	C	12, 14, 43, 57	100nF
2402-000007	MV6.3VC220MD	SAMY	1	C	3	22uF/6.3V(E)
2402-000107	MV6.3VC100MF	SAMY	1	C	66	100uF/6.3V(E)
2402-001068	MV6.3VC330MD	SAMY	1	C	2	330uF/6.3V(E)
2404-000297	TCSCS1A226KAR	SEM	1	C	61	22uF/10V, 6032(T)
2404-000253	TCSCS1A476KDAR	SEM	1	C	1	47uF/16V, 7343(T)
2703-001793	BDS-4532-100M	BUJEON	1	L	4	10uH
2703-001785	BDS-5445-101K	BUJEON	1	L	1	10uH
2801-003780	SQ6U10368F2EED	SEC	1	X	1	CRYSTAL
3002-001075	SBT-9302RP-2	SAMBU	1	BZ	1	BUZZER
3003-001017	EM-100PH	PRIMO	1	MC	1	MICROPHONE
3009-001027	KR-202HW-08	KYERI	1	PZ	1	RECEIVER
GG43-00001A	N-700AACN	SANYO	1	BT	1	BATTERY

4-2 SP-R5200 Hand RF Parts List

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
0405-001024	1SV276	TOSHIBA	2	D	505, 506	VARACTOR DIODE
0405-001054	BB833	SIEMENS	1	D	507	DIODE
0409-001001	BAR63-03W	SIEMENS	1	D	500	PIN DIODE
0409-001005	BAR80	SIEMENS	1	D	502	DUAL PIN DIODE
0501-002222	BC807-25W	SIEMENS	2	Q	500, 501	TR-PNP
0504-001010	DTA143XUA	SIEMENS	1	Q	504	TR-NPN
1201-001408	PMB4820	SIEMENS	1	U	500	PWR IC
1205-001616	PMB5420	SIEMENS	1	U	501	RX IC
1209-001226	PMB4220	SIEMENS	1	U	502	TX IC
2007-000172	RC1005J100CS	SEM	1	R	527	10, 1005
2007-007141	RC1005J241CS	SEM	2	R	502, 537	240, 1005
2007-001316	RC1005J821CS	SEM	2	R	534, 540	820, 1005
2007-000140	RC1005J102CS	SEM	4	R	504, 530, 535, 530	1K, 1005
2007-001320	RC1005J182CS	SEM	2	R	543, 544	1K8, 1005
2007-000141	RC1005J222CS	SEM	1	R	518	2K2, 1005
2007-000142	RC1005J272CS	SEM	1	R	505	2K7, 1005
2007-001323	RC1005J302CS	SEM	2	R	500, 501	3K, 1005
2007-007001	RC1005J392CS	SEM	5	R	528, 529, 533, 541, 542	3K9, 1005
2007-000143	RC1005J472CS	SEM	1	R	512	4K7, 1005
2007-000982	RC1005J542CS	SEM	1	R	526	5K6, 1005
2007-000148	RC1005J103CS	SEM	2	R	538, 539	10K, 1005
2007-000153	RC1005J2223CS	SEM	1	R	532	22K, 1005
2007-000155	RC1005J273CS	SEM	1	R	531	27K, 1005
2007-000775	RC1005J333CS	SEM	1	R	601	33K, 1005
2007-000163	RC1005J124CS	SEM	1	R	513	120K, 1005
2203-001383	GRM36COG0R5C50PT	MURATA	1	C	601	0.5pF, 1005
2203-005288	GRM36COG010B50PT	MURATA	1	C	C557	1pF, 1005(B)
2203-001385	GRM36COG1R5C50PT	MURATA	1	C	592	1.5pF, 1005
2203-005281	GRM36COG1R5B50PT	MURATA	2	C	552, 591	1.5pF, 1005(B)
2203-000696	GRM36COG020C50PT	MURATA	1	C	593	2pF, 1005
2203-005552	GRM36COG2R2B50PT	MURATA	4	C	501, 553, 549, 588	2.2pF, 1005(B)
2203-005446	GRM36COG2R7B50PT	MURATA	3	C	529, 539, 590	2.7pF, 1005(B)
2203-000870	GRM36COG030C50PT	MURATA	1	C	605	3pF, 1005
2203-005444	GRM36COG30B50PT	MURATA	2	C	550, 563	3pF, 1005(B)
2203-005443	GRM36COG3R3B50PT	MURATA	3	C	558, 559, 610	3.3pF, 1005(B)
2203-001017	C1608TH1H040CT000	TDKK	4	C	503, 507, 594, 602	4pF, 1005
2203-005390	CM05CG4R0B50AT	AVX	2	C	548, 562	4pF, 1005(B)
2203-001178	GRM36COG060D50PT	MURATA	3	C	541, 596, 597	6pF, 1005
2203-001201	GRM36COG070D50PT	MURATA	2	C	524, 527	7pF, 1005
2203-001259	GRM36COG080D50PT	MURATA	1	C	546	8pF, 1005

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
2203-000278	GRM36COG100D50PT	MURATA	24	C	502, 504, 506, 512, 523, 525	10pF, 1005
					526, 537, 540, 565, 572, 574	
					576, 579, 580, 581, 582, 587	
					598, 599, 608, 521, 516, 611	
2203-000386	GRM36COG150J50PT	MURATA	3	C	513, 538, 595	15pF, 1005
2203-000628	GRM36COG220J50PT	MURATA	1	C	571	22pF, 1005
2203-000643	GRM36COG240J50PT	MURATA	1	C	602	24pF, 1005
2203-001072	GRM36COG560J50PT	MURATA	1	C	543	56pF, 1005
2203-000233	GRM36COG101J50PT	MURATA	1	C	604	100pF, 1005
2203-000359	GRM36COG151J50PT	MURATA	2	C	589, 600	150pF, 1005
2203-000940	GRM36COG471J50PT	MURATA	1	C	536	470pF, 1005
2203-003027	06035A821JAT2A	AVX	1	C	544	820pF, 1608(COH)
2203-005565	GRM39COH102J25	MURATA	1	C	567	1nF, 1608(COH)
2203-005138	GRM36X7R182K50PT	MURATA	1	C	520	1.8nF, 1005
2203-001210	GRM36X7R822K50PT	MURATA	1	C	534	8.2nF, 1005
2203-000254	GRM36X7R103K16PT	MURATA	5	C	508, 514, 518, 560, 569	10nF, 1005
2203-001274	ECHU1C153JB5	PANASONIC	1	C	568	15nF, 3216(COG)
2203-001405	GRM36X7R223K50PT	MURATA	1	C	535	22nF, 1005
2203-005061	GRM36Y5V104Z16T	MURATA	3	C	547	100nF, 1005
2502-000125	TZV02Z060A110T00	MURATA	2	C	555, 564	TRIMMER
2703-001770	MLK1005S3N3S	TDK	2	L	506, 507	3.3nH, 1005
2703-001772	MLK1005S18NJ	TDK	2	L	500, 510	18nH, 1005
2703-001292	LL2012-F82NJ	TOKO	1	L	505	82nH, 2012
2703-000144	MLF2012DR18KT	TDK	1	L	502	180nH, 2012
2703-000266	MLF2012DR22KT	TDK	1	L	509	220nH, 2012
2802-001016	B69610-H1397-B306	SIEMENS	1	Y	500	TX RESONATOR
2903-001196	B69812-N1897-L820	SIEMENS	1	X	500	BPF FILTER
2904-001158	B39111-B8104-L100	SIEMENS	1	X	501	SAW FILTER
GG71-00005A						SHIELD FRAME
GG71-00006A						SHIELD CAN
GG42-00001A	SS-1809	SAMBO	1	ANT		ANTENNA

4-3 SP-R5200 Base Logic Parts List

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
0402-000309	1SR154-400TE25	ROHM	1	D	5	REC DIODE
0402-000318	SIZB60	PSHINDENGEN	1	BD	2	BRIDGE DIODE
0403-001047	BZX84C12	PHILIPS	2	ZD	1, 2	ZEMER DIODE
0403-001085	1SMB5927BT3	MOTOROLA	1	ZD	3	ZEMER DIODE
0406-001012	SM12	SEMTEC	1	ZD	4	ZEMER DIODE
0407-000122	1SS226 TE85R	KEC	1	D	3	SW-DIODE
0501-000457	MMBT2222A	SEC	3	Q	2, 3 ,5	TR-NPN
0501-000481	MMBTA92	SEM	1	Q	14	TR
0501-000526	2SD999-CK	NEC	1	Q	9	TR
0502-000479	2SD798	NEC	2	Q	10, 11	TR
0502-001034	KSH350TM	SEC	1	Q	1	TR
0502-001053	MMSTA06	ROHM	2	Q	7, 15	TR
0601-000146			1	LED	1	GREEN LED
0604-000138	PC357N4T	SHARP	1	U	7	PHOTO COUPLER
1103-001023	24LC08N-10SI-2.7	MICROCHIP	1	U	10	EEPROM
1203-000370	MC78M05CDTRK	MOTOROLA	1	U	3	REGULATOR
1203-000422	M5237ML-600D	MITSUBISH	1	U	9	REGULATOR
1205-001628	PMB5725	SIEMENS	1	U	5	BMC
2003-000358	MOR1W, 68, J, TB	ABCO	1	R	77	68
2007-000070	MCR03EZHUJ000	ROHM	14	R	1, 3, 4, 5, 6, 7, 8, 13, 14, 51	0
					71, 115, 118, 123	
2007-000840	RC3216J270CS	SEM	2	R	84, 85	39, 1/8W
2007-001134	RC1608J390CS	SEM	1	R	49	68
2007-000539	RC1608J201CS	SEM	1	R	103	200
2007-000075	RC1608J221CS	SEM	2	R	75, 104	220
2007-000729	RC1608J301CS	SEM	1	R	64	300
2007-000076	RC1608J330CS	SEM	3	R	87, 88, 89	330
2007-000077	RC1608J471CS	SEM	1	R	76	470
2007-000120	RC1608J681CS	SEM	1	R	62	680
2007-000078	RC1608J102CS	SEM	1	R	51	1K
2007-000079	RC1608J182CS	SEM	2	R	42, 43	1k8
2007-000512	RC1608J242CS	SEM	1	R	65	2k4
2007-000084	RC1608J472CS	SEM	2	R	30, 94	4k7
2007-000086	RC1608J562CS	SEM	1	R	59	5k6
2007-000088	RC1608J752CS	SEM	1	R	99	7k5
2007-000127	RC1608J912CS	SEM	1	R	86	9k1
2007-000090	RC1608J103CS	SEM	6	R	18, 21, 22, 23, 25, 26	10K
2007-000092	RC1608J153CS	SEM	4	R	34, 46, 96, 101	15K
2007-000458	RC1608J183CS	SEM	1	R	80, 81	18K
2007-000094	RC1608J223CS	SEM	1	R	102	22K

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
2007-000129	RC1608J273CS	SEM	1	R	82	27K
2007-000913	RC1608J433CS	SEM	1	R	79	43K
2007-000098	RC1608J563CS	SEM	2	R	33, 100	56K
2007-000102	RC1608J104CS	ROHM	4	R	9, 44 ,45, 47	100K
2007-000604	RC1608J244CS	SEM	2	R	97, 98	240K
2007-000109	RC1608J105CS	SEM	1	R	74	1M
2203-001086	CL10C050CBNC	SEM	1	C	29	5pF
2203-001109	GRM39COG6R8C100PT	MURATA	2	C	27, 28	6.8pF
2203-000280	GRM39COG100D50PT	MURATA	4	C	76, 77, 79, 80	10pF
2203-000426	CL10C050CBNC	SEM	1	C	42	18pF
2203-000315	GRM39COG121J50PT	MURATA	1	C	33	120pF
2203-001408	GRM39COG271J50PT	MURATA	2	C	31, 32	270pF
2203-000440	GRM39X7R102K50PT	MURATA	4	C	35, 36, 37, 38	1nF
2203-000491	GRM39X7R222K50PT	MURATA	1	C	30	2.2nF
2203-000888	GRM39X7R472K50PT	MURATA	1	C	63	4.7nF
2203-001103	CL10B682KBNC	SEM	1	C	59	6.8nF
2203-000257	GRM39X7R103K50PT	MURATA	18	C	1, 2, 3, 5, 7, 8, 9, 10, 11, 12	10nF
					13, 14, 15, 16, 17, 18, 19, 20	
2203-000374	GR39X7R153K25PT	MURATA	1	C	70	15nF, 2012
2203-000604	GR39X7R223K25PT	MURATA	2	C	34, 62	22nF
2203-000799	GR39X7R333K25PT	MURATA	1	C	66	33nF
2203-001141	GRM40X7R683K25PT	MURATA	3	C	24, 25, 26	68nF, 2012
2203-005148	GRM39X7R104K16PT	MURATA	7	C	6, 53, 54, 57, 58, 71, 75	100nF
2203-000204	GRM40X7R104K16PT	MURATA	1	C	69	100nF, 2012
2203-000751	GRM40X7R334K16PT	MURATA	2	C	68, 40	330nF, 2012
2305-000583	MMD474K250V	SHIN	1	C	60	470nF
2401-001509	SRA16VB47-M	SAMYOUNG	2	C	22, 23	47uF/16V
2404-000120	TCSCS1A106MBAR	SEM	1	C	61	10uF/10V, 3528(T)
2404-000253	TCSCS1C476KDAR	SEM	1	C	64	47uF/16V, 7343(T)
2702-001070	SS1D-SP246	SJETC	1	L	3	4mH
2703-000373	LEM2520T-680J	TAIYO	2	L	1, 2	68uH
3404-000191	KPT1105A	JEIL	1	SW	1	TACTILE-SWITCHES
2801-003780	SQ6U10368F2EED	SEC	1	X	1	CRYSTAL
4715-000127	DSS-301L-A22A	MITSUBISH	1	MIS	1	ARRESTER
3711-000445	00-8283-0212-00000		1	CN	5	2P CON
3722-001239	100860-1	AMP	2	CN	1, 2	MODULAR JACK
GG39-41048A	KJ9802-12-01	SUNGJI	1			HARNNES
GG71-00008A		AILL	1	CN	5	TERMINAL)A)
GG71-00009A		AILL		CN	6	TERMINAL(B)

4-4 SP-R5200 Base RF Parts List

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
0405-001024	1SV276	TOSHIBA	2	D	505, 506	VARACTOR DIODE
0405-001054	BB833	SIEMENS	1	D	507	DIODE
0409-001001	BAR63-03W	SIEMENS	1	D	500	PIN DIODE
0409-001003	BAR64-05W	SIEMENS	1	D	503	PIN DIODE
0409-001005	BAR80	SIEMENS	1	D	502	DUAL PIN DIODE
0501-002222	BC807-25W	SIEMENS	2	Q	500, 501	TR-PNP
0504-001010	DTA143XUA	SIEMENS	1	Q	504	TR-NPN
1201-001408	PMB4820	SIEMENS	1	U	500	PWR IC
1205-001616	PMB5420	SIEMENS	1	U	501	RX IC
1209-001226	PMB4220	SIEMENS	1	U	502	TX IC
2007-000171	RC1005J100CS	SEM	1	R	536	0, 1005
2007-000172	RC1005J100CS	SEM	1	R	527	10, 1005
2007-007141	RC1005J241CS	SEM	2	R	502, 537	240, 1005
2007-001316	RC1005J821CS	SEM	1	R	540	820, 1005
2007-000140	RC1005J102CS	SEM	4	R	504, 530, 535, 545	1k, 1005
2007-001320	RC1005J182CS	SEM	2	R	543, 544	1k8, 1005
2007-000141	RC1005J222CS	SEM	1	R	518	2k2, 1005
2007-000142	RC1005J272CS	SEM	1	R	505	2k7, 1005
2007-001323	RC1005J302CS	SEM	2	R	500, 501	3K, 1005
2007-007001	RC1005J392CS	SEM	5	R	528, 529, 533, 541, 542	3k9, 1005
2007-000143	RC1005J472CS	SEM	1	R	512	4k7, 1005
2007-000982	RC1005J542CS	SEM	1	R	526	5k6, 1005
2007-000148	RC1005J103CS	SEM	2	R	538, 539	10k, 1005
2007-000153	RC1005J223CS	SEM	2	R	524, 532	22k, 1005
2007-000155	RC1005J273CS	SEM	1	R	531	27k, 1005
2007-000775	RC1005J333CS	SEM	1	R	601	33k, 1005
2007-000163	RC1005J124CS	SEM	1	R	513	120k, 1005
2203-001383	GRM36COGR5C50PT	MURATA	1	C	601	0.5pF, 1005
2203-005288	GRM36COG010B50PT	MURATA	1	C	C557	1pF, 1005(B)
2203-001385	GRM36COG1R5C50PT	MURATA	1	C	592	1.5pF, 1005
2203-005281	GRM36COG1R5B50PT	MURATA	2	C	552, 591	1.5pF, 1005(B)
2203-000696	GRM36COG020C50PT	MURATA	1	C	593	2pF, 1005
2203-005552	GRM36COG2R2B50PT	MURATA	4	C	501, 553, 549, 588	2.2pF, 1005(B)
2203-005446	GRM36COG2R7B50PT	MURATA	5	C	529, 539, 590, 595, 610	2.7pF, 1005(B)
2203-000870	GRM36COG030C50PT	MURATA	1	C	605	3pF, 1005
2203-005444	GRM36COG030B50PT	MURATA	2	C	550,563	3pF, 1005(B)
2203-005443	GRM36COG3R3B50PT	MURATA	2	C	558, 559	3.3pF, 1005(B)
2203-001017	C1608TH1H040CT000	TDKK	4	C	503, 507, 594, 602	4pF, 1005
2203-005390	CM05CG4R0B50AT	AVX	2	C	548, 562	4pF, 1005(B)
2203-001178	GRM36COG060D50PT	MURATA	3	C	541, 596, 597	6pF, 1005

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
2203-001201	GRM36COG070D50PT	MURATA	2	C	524, 527	7pF, 1005
2203-001259	GRM36COG080D50PT	MURATA	1	C	546	8pF, 1005
2203-000278	GRM36COG100D50PT	MURATA	20	C	502, 504, 506, 512, 523, 525, 526,	10pF, 1005
					537, 540, 565, 572, 574, 576, 579,	
					580, 581, 582, 599, 608, 598	
2203-000386	GRM36COG150J50PT	MURATA	2	C	513,538	15pF, 1005
2203-000628	GRM36COG220J50PT	MURATA	1	C	571	22pF, 1005
2203-000643	GRM36COG240J51PT	MURATA	1	C	602	24pF, 1005
2203-001072	GRM36COG560J50PT	MURATA	1	C	543	56pF, 1005
2203-000233	GRM36COG101J50PT	MURATA	1	C	604	100pF, 1005
2203-000359	GRM36COG151J50PT	MURATA	3	C	516, 589, 600	150pF, 1005
2203-000940	GRM36COG471J50PT	MURATA	1	C	536	470pF, 1005
2203-003027	06035A821JAT2A	AVX	1	C	544	820pF, 1608, (COH)
2203-005565	GRM39COH102J25	MURATA	1	C	567	1nF, 1608, (COH)
2203-005138	GRM36X7R182K50PT	MURATA	1	C	520	1.8nF, 1005
2203-001210	GRM36X7R822K50PT	MURATA	1	C	534	8.2nF, 1005
2203-000254	GRM36X7R103K16PT	MURATA	4	C	508, 514, 518, 560, 569	10nF, 1005
2301-001274	ECHU1C153JB5	PANASONIC	1	C	568	15nF, 3216(C0G)
2203-001405	GRM36X7R223K50PT	MURATA	1	C	535	22nF, 1005
2203-005061	GRM36Y5V104Z16PT	MURATA	3	C	547	100nF, 1005
2502-000125	TZV02Z060A110T00	MURATA	2	C	555, 564	TRIMMER
2703-001770	MLK1005S3N3S	TDK	2	L	506, 507	3.3nH, 1005
2703-001772	MLK1005S18NJ	TDK	1	L	500	18nH, 1005
2703-001292	LL2012-F82NJ	TDK	1	L	505	82nH, 2012
2703-000144	MLF2012DR18KT	TDK	1	L	502	180nH, 2012
2703-000266	MLF2012DR22KT	TDK	1	L	509	220nH, 2012
2802-001016	B69610-H1397-B306	SIEMENS	1	Y	500	TX RESONATOR
2903-001196	B69812-N1897-L820	SIEMENS	1	X	500	BPF FILTER
2904-001158	B39111-B8104-L100	SIEMENS	1	X	501	SAW FILTER
GG71-00010A			2	ANT		ANTENNA-WIRE
GG71-00005A			1			SHIELD FRAME
GG71-00006A			1			SHIELD CAN

4-5 SP-R5200 Charger Part List

SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
0402-000309	1SR154-400TE25	ROHM	1	D	1	DIODE
0407-000122	1SS226 TE85R	KEC	1	D	2	SW-DIODE
0501-000462	MMBT2907A	SEC	1	Q	1	TR-PNP
0501-002043	2SB1184RF5-T201	ROHM	1	Q	2	TR
2003-000238		ROHM	2	R	1, 2	CHIP RES 27
2007-000468	MCR18EZHUJ000	ROHM	1	R	3	CHIP RES 1K, 2012
3711-000445	00-8283-0212-00000		1	CN	5	2PCON
3722-001270	216444-1	AMP	1	CON	1	POWER JACK

4-6 Service Subsidiary materials

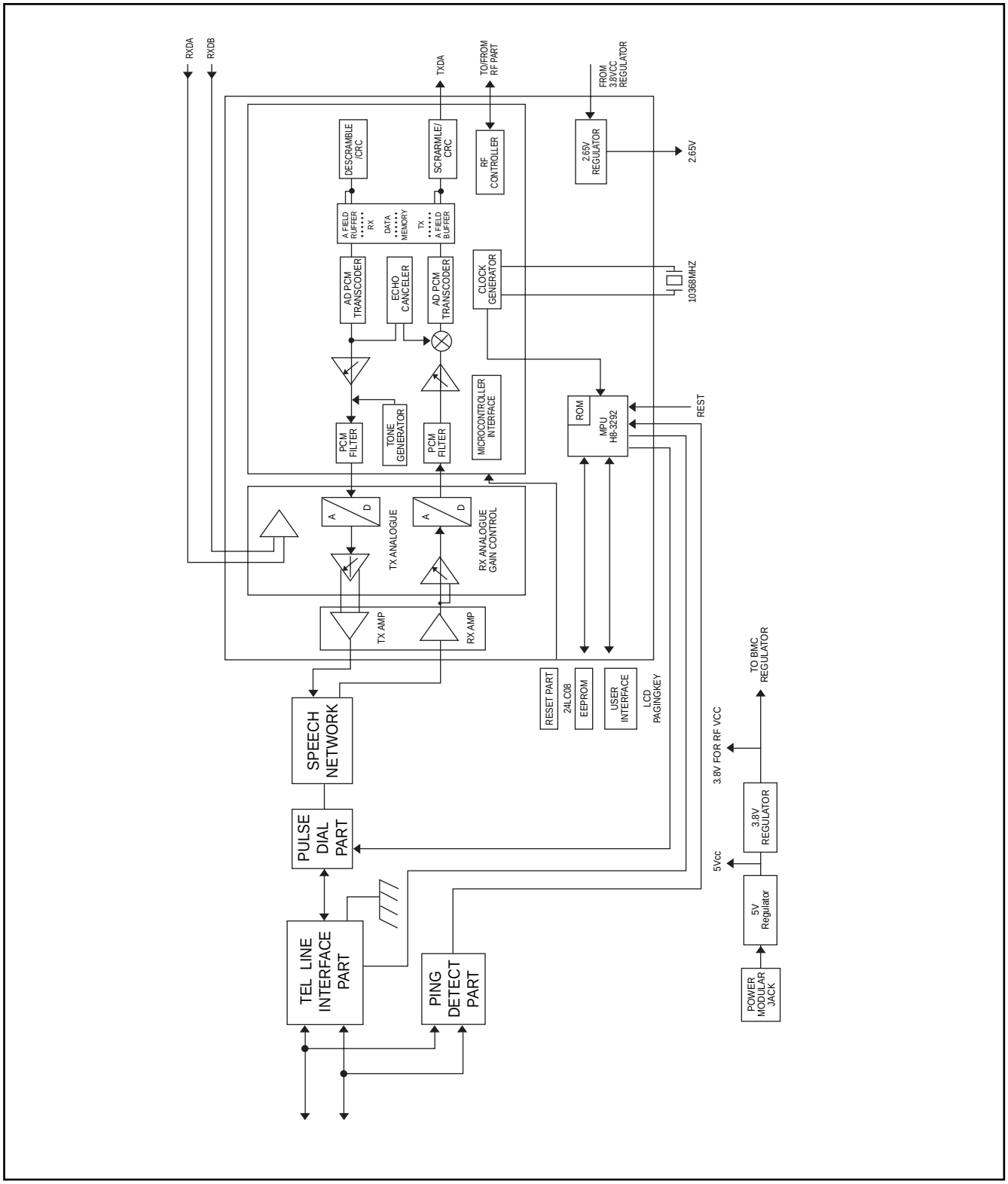
SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
GG39-50509A	KEGM02-6M-US416	GENYAG	1			LINE CODE
GG44-30525A	A39952G	SINOAMERICA	1			ADAPTOR-DUAL
GG44-30521A	AD-2223FM	ANOMA	1			ADAPTOR-SINGLE
GG68-00050A		HANSUNG				USER'S MANUAL
GG68-00049A		JINYOUNGSA				SERVICE MANUAL

4-7 PCB Array

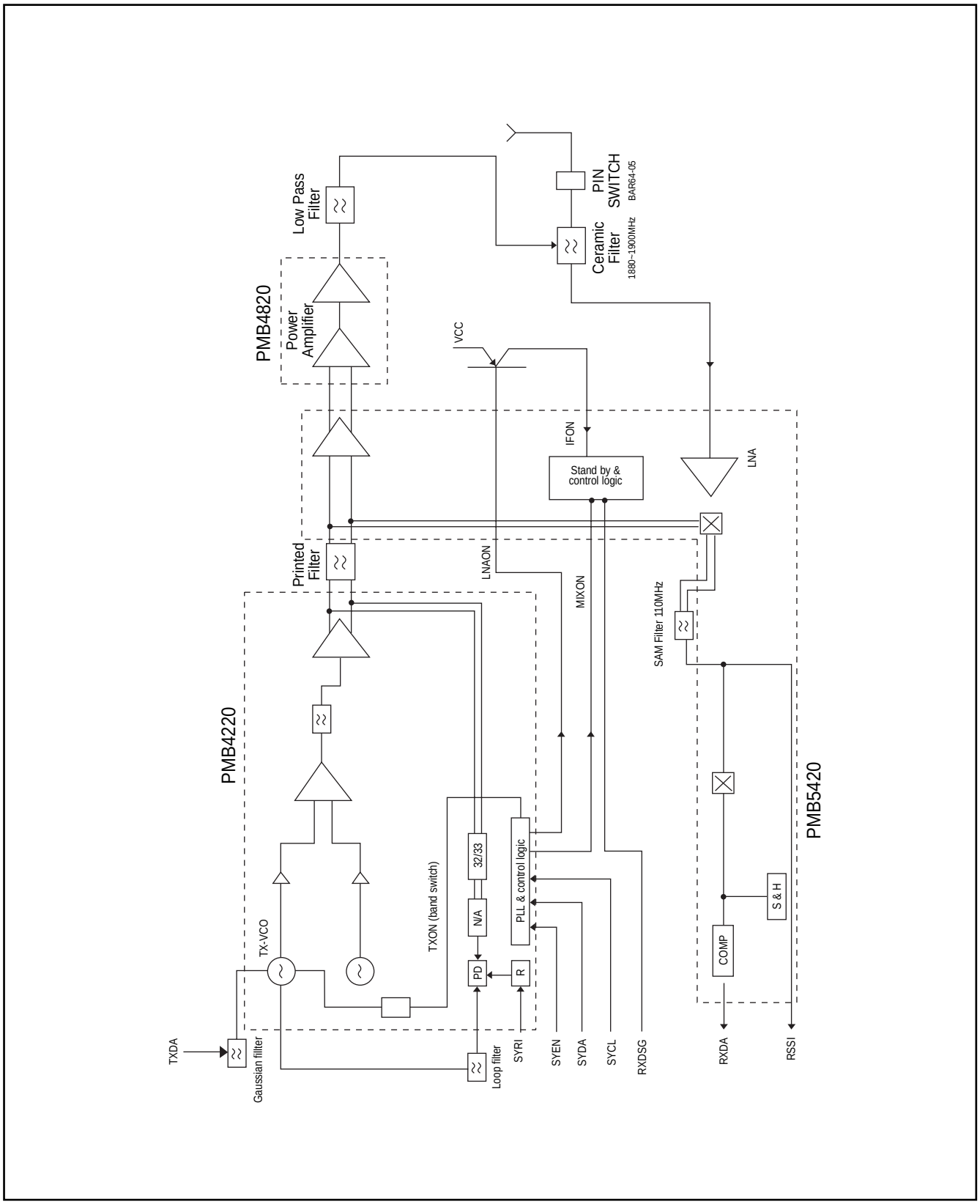
SEC CODE	VENDOR CODE	VENDOR	Q'T	SYM	REFERENCE	DESCRIPTION
GG41-00006A	SP-R52000	GIJUSANUP	1			HAND LOGIC PCB
GG41-00008A	SP-R52000	GIJUSANUP	1			BASE LOGIC PCB
GG41-00007A	SP-R52000	GIJUSANUP	1			RF PCB
GG41-00009A	SP-R52000	GIJUSANUP	1			CHARGER PCB

5. Block Diagram

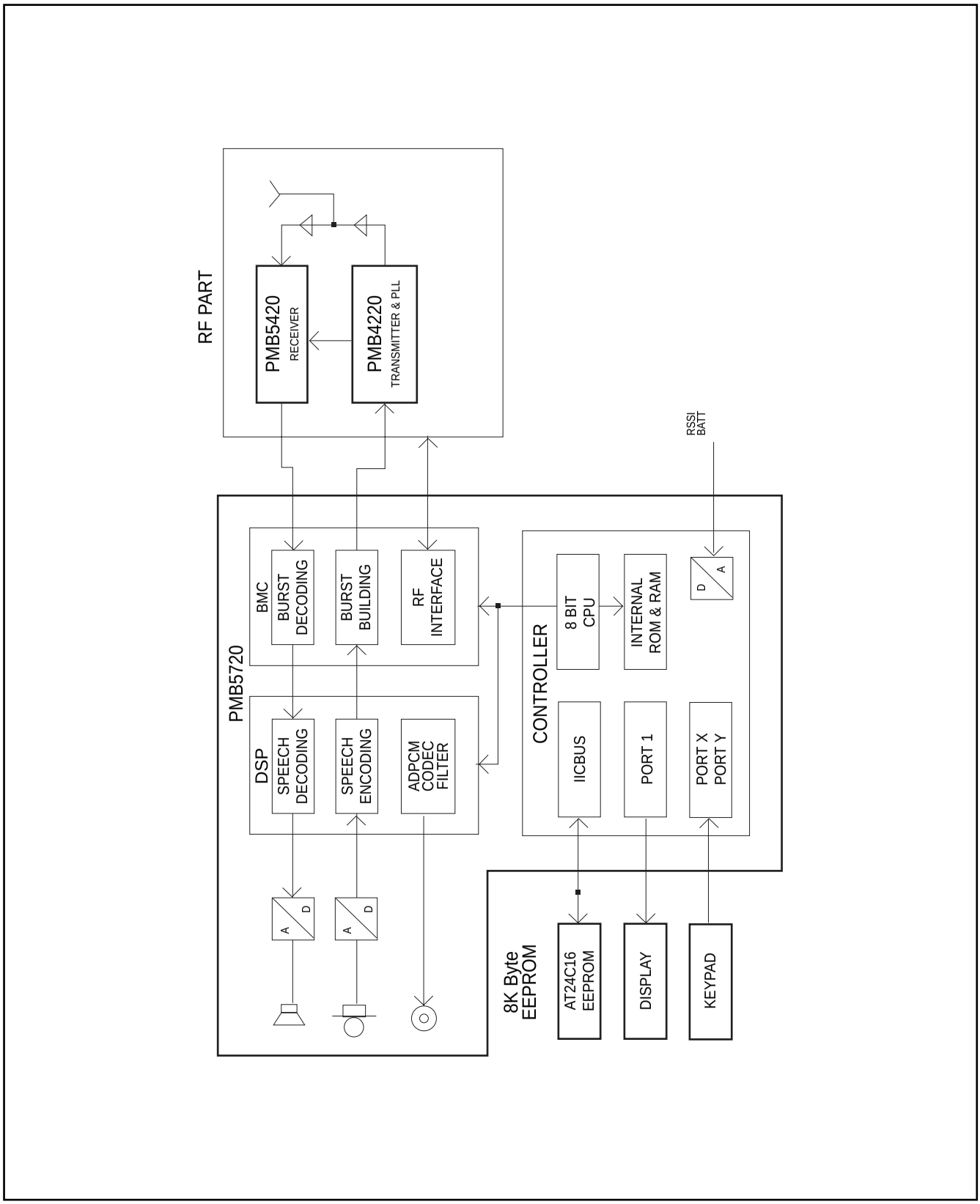
5-1 SP-R5200 Base Logic Block Diagram



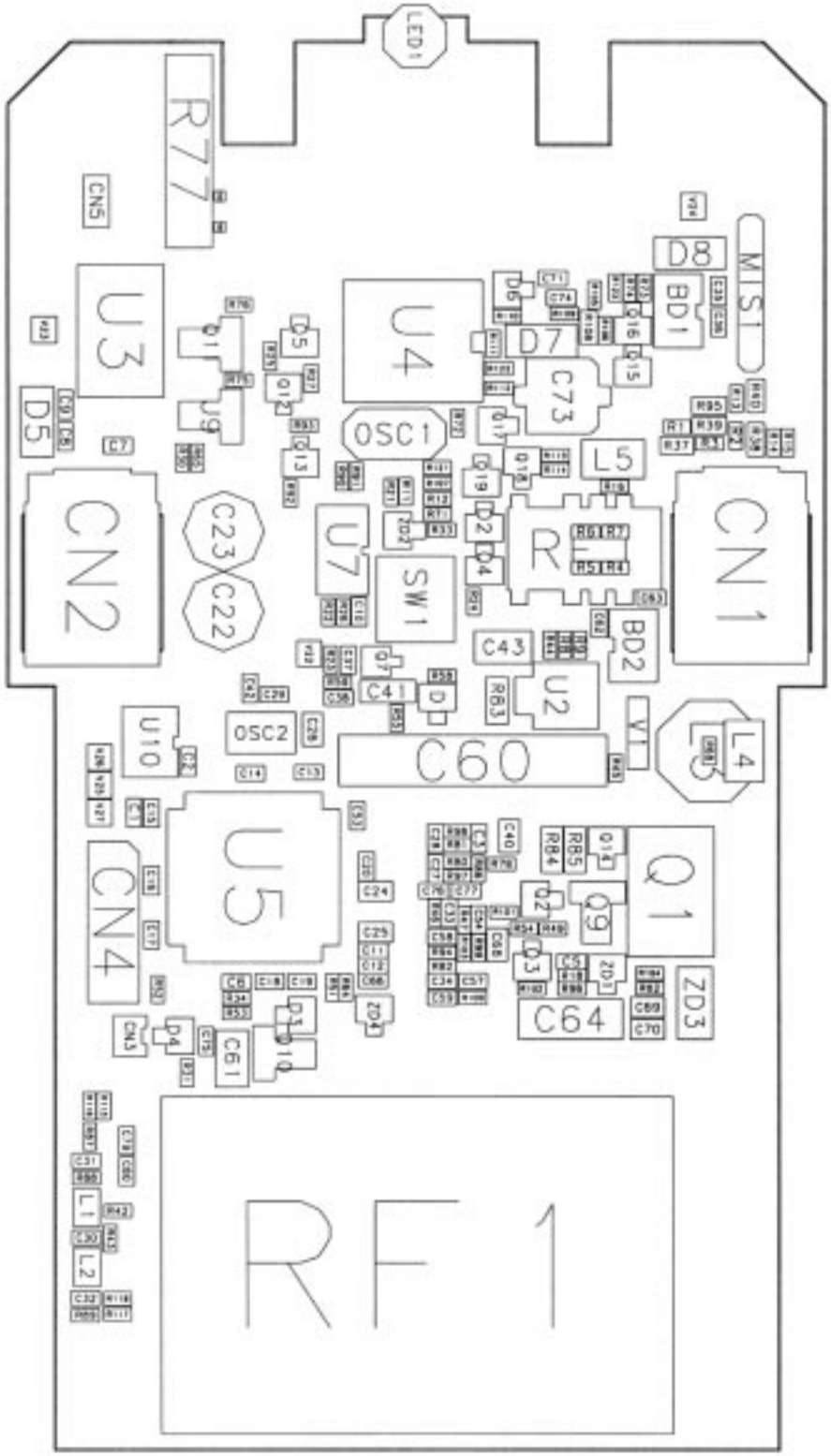
5-2 SP-R5200 RF Block Diagram

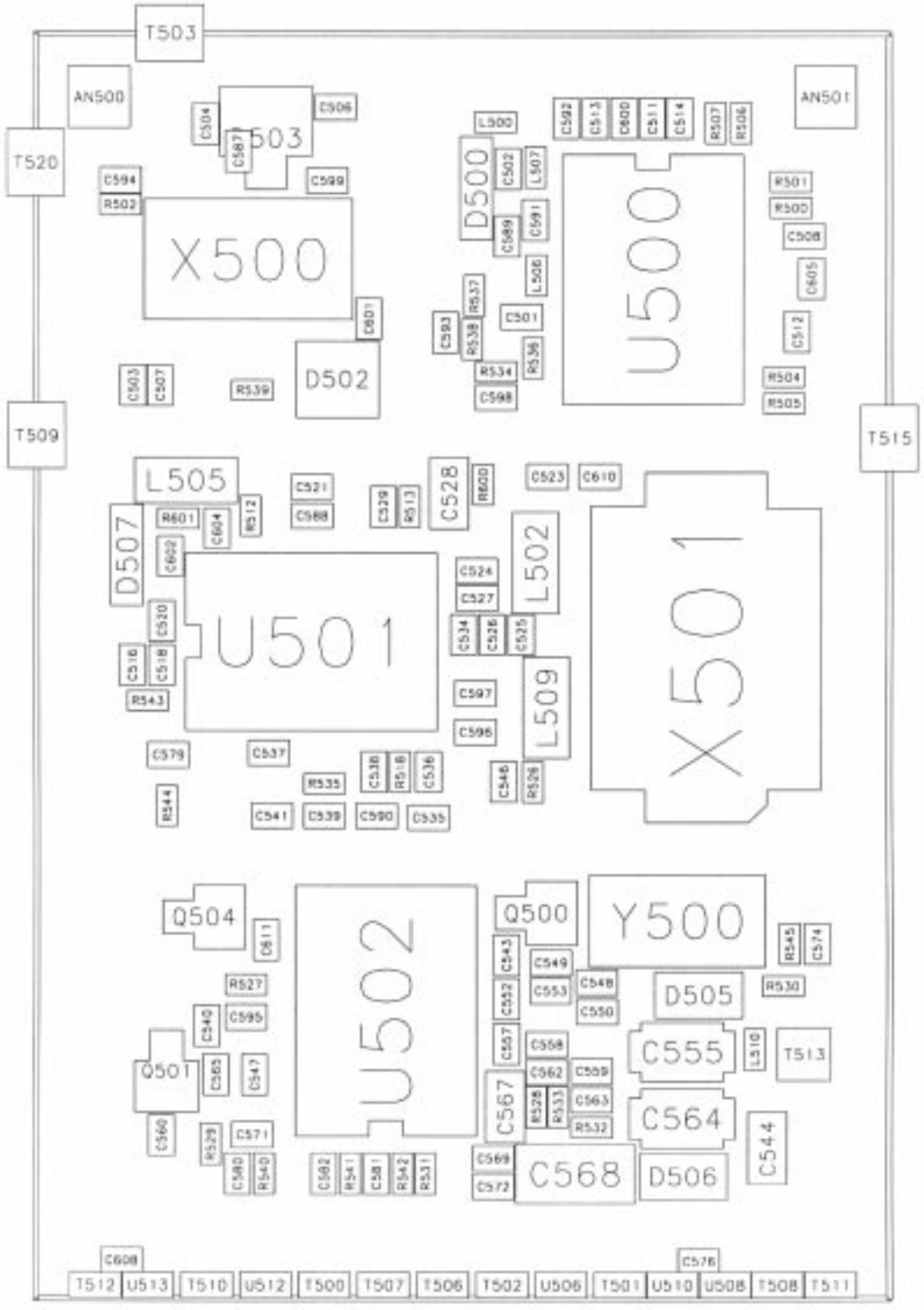


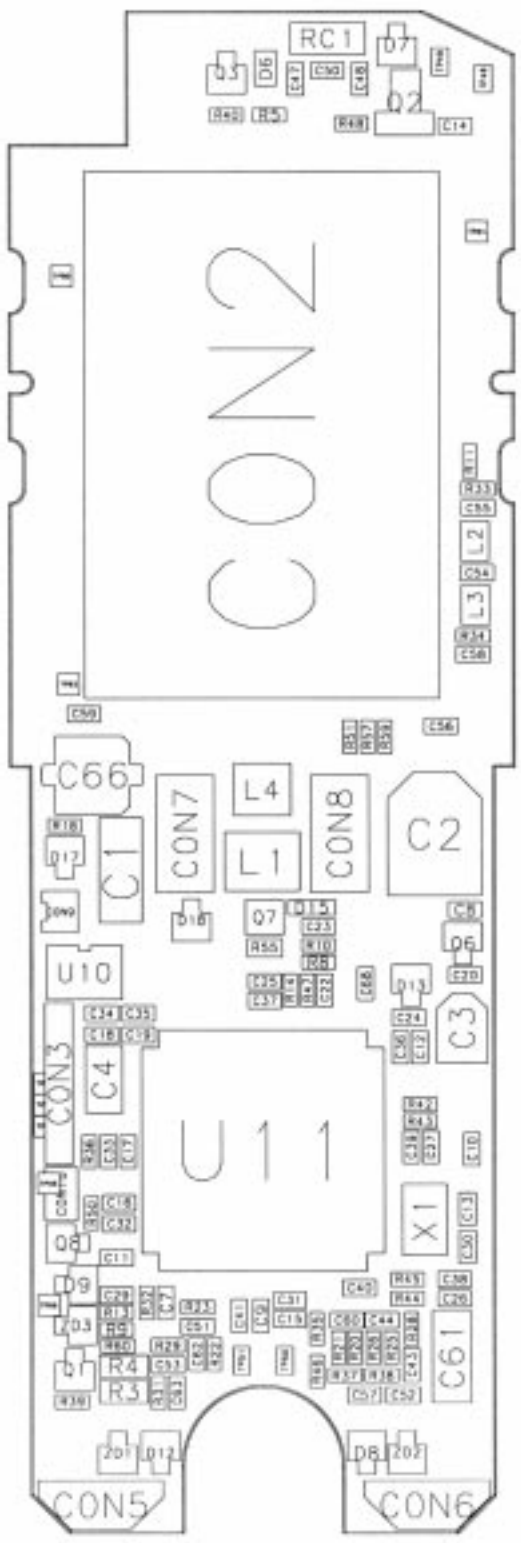
5-3 SP-R5200 Hand Block Diagram



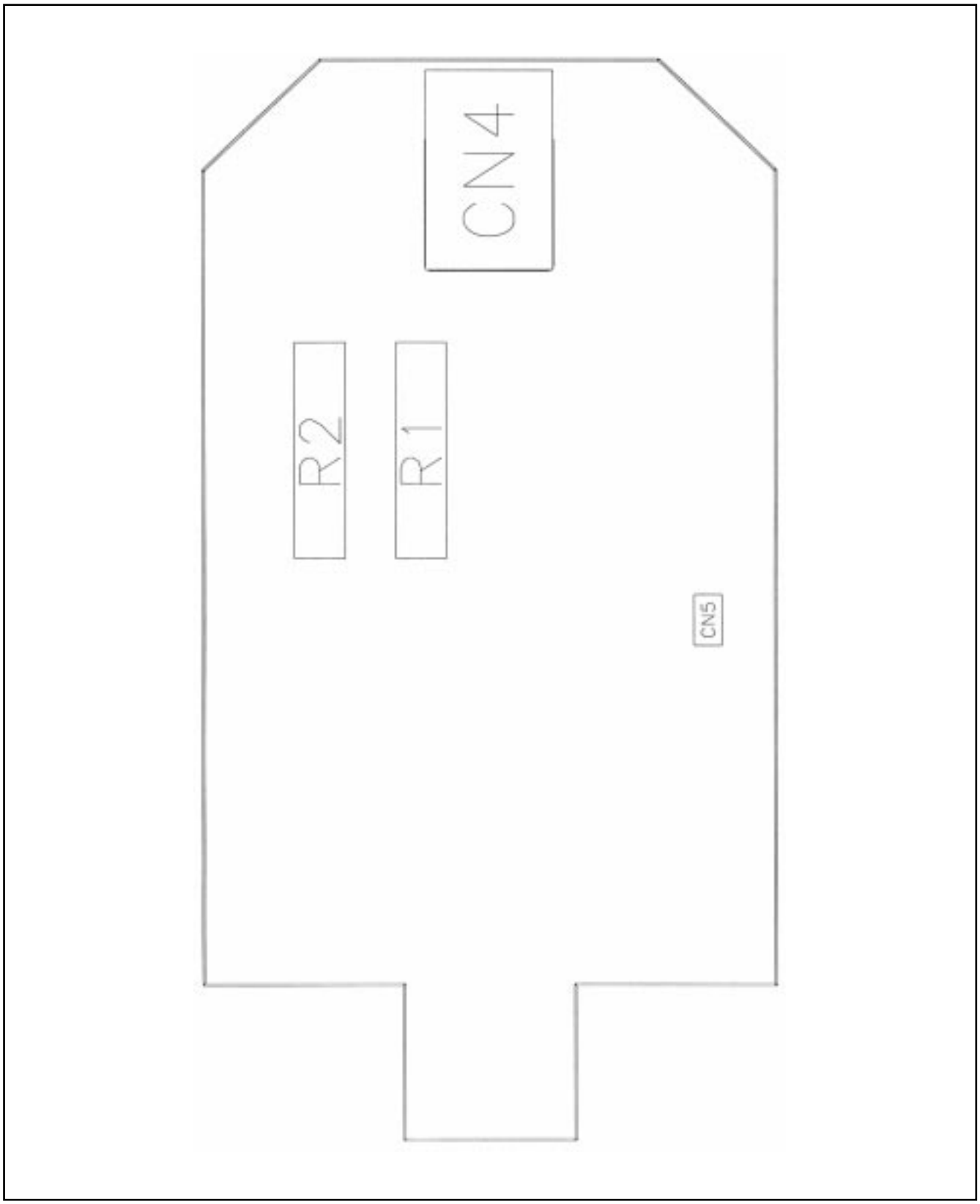
6. PCB Diagrams

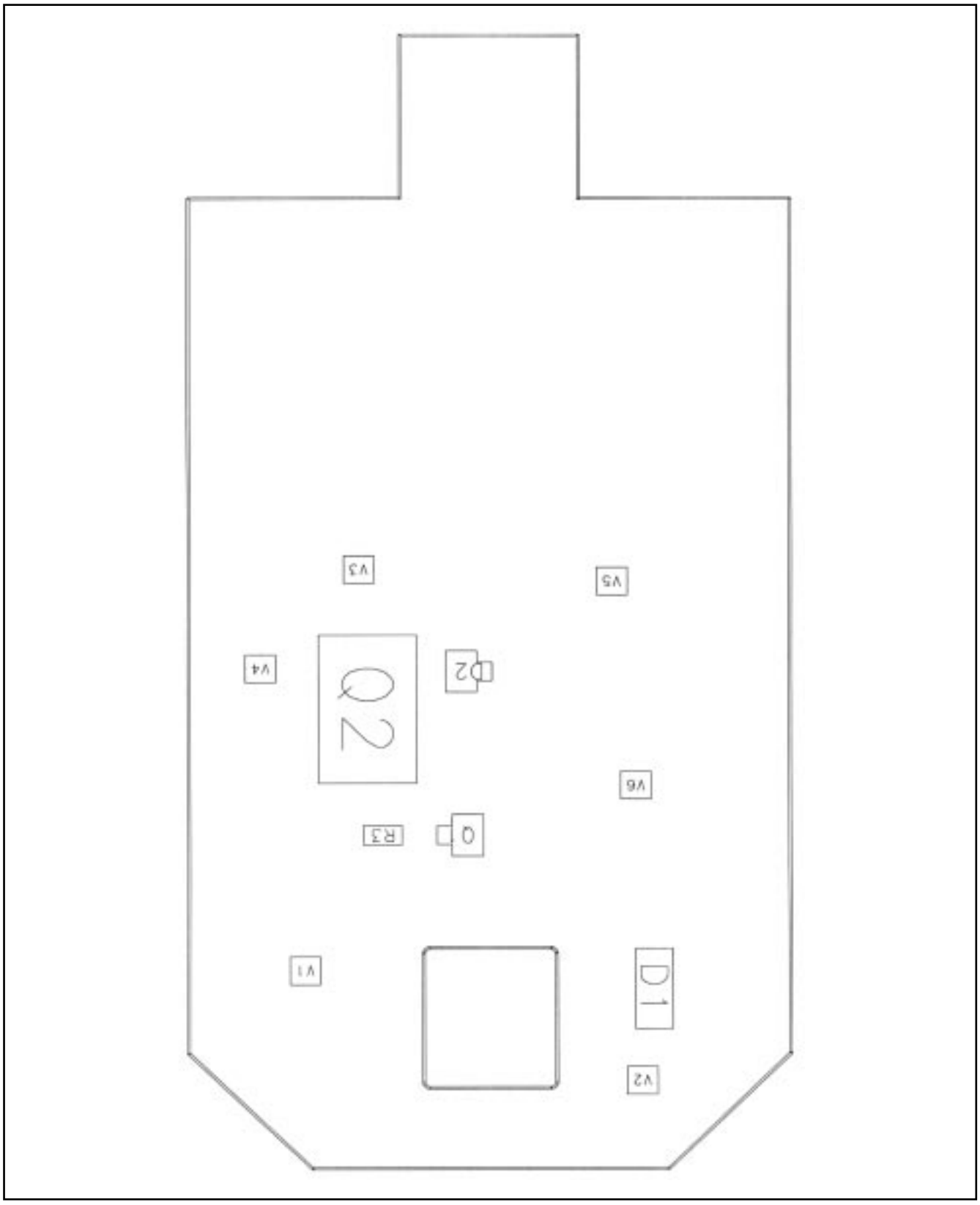



T503
AN500
T520
C503
C506
C504
C587
C594
R502
C599
X500
D502
C503
C507
R539
C601
T509
L505
R601
C604
R512
C602
D507
C521
C588
C539
R513
C528
R600
C523
C610
U501
C524
C527
C534
C526
C525
L502
L509
C597
C596
C546
R526
C520
C516
C518
R543
C579
C537
C538
R518
C536
R535
C541
C539
C590
C535
R544
T515
AN501
C502
L500
C592
C513
C600
C511
C514
R507
R506
D500
L507
C589
C591
L506
R537
C501
C593
R538
R536
R534
C598
U500
R501
R500
C508
C605
C512
R504
R505
X501
Q504
C611
R527
C540
C595
Q501
C545
C547
C560
R529
C571
C580
R540
U502
C582
R541
C581
R542
R531
Q500
C543
C552
C557
C549
C553
C548
C550
C558
C562
C559
R528
R533
C563
R532
C567
C569
C572
Y500
R545
C574
D505
R530
C555
L510
T513
C564
C544
C568
D506
C608
C576
T512
U513
T510
U512
T500
T507
T506
T502
U506
T501
U510
U508
T508
T511


RC1
D7
D3
D6
Q2
CON2
L2
L3
C66
C1
CON7
L4
L1
CON8
C2
Q7
D6
U10
C3
CON3
C4
U11
X1
Q8
D9
D3
R4
R3
C61
D8
CON5
CON6

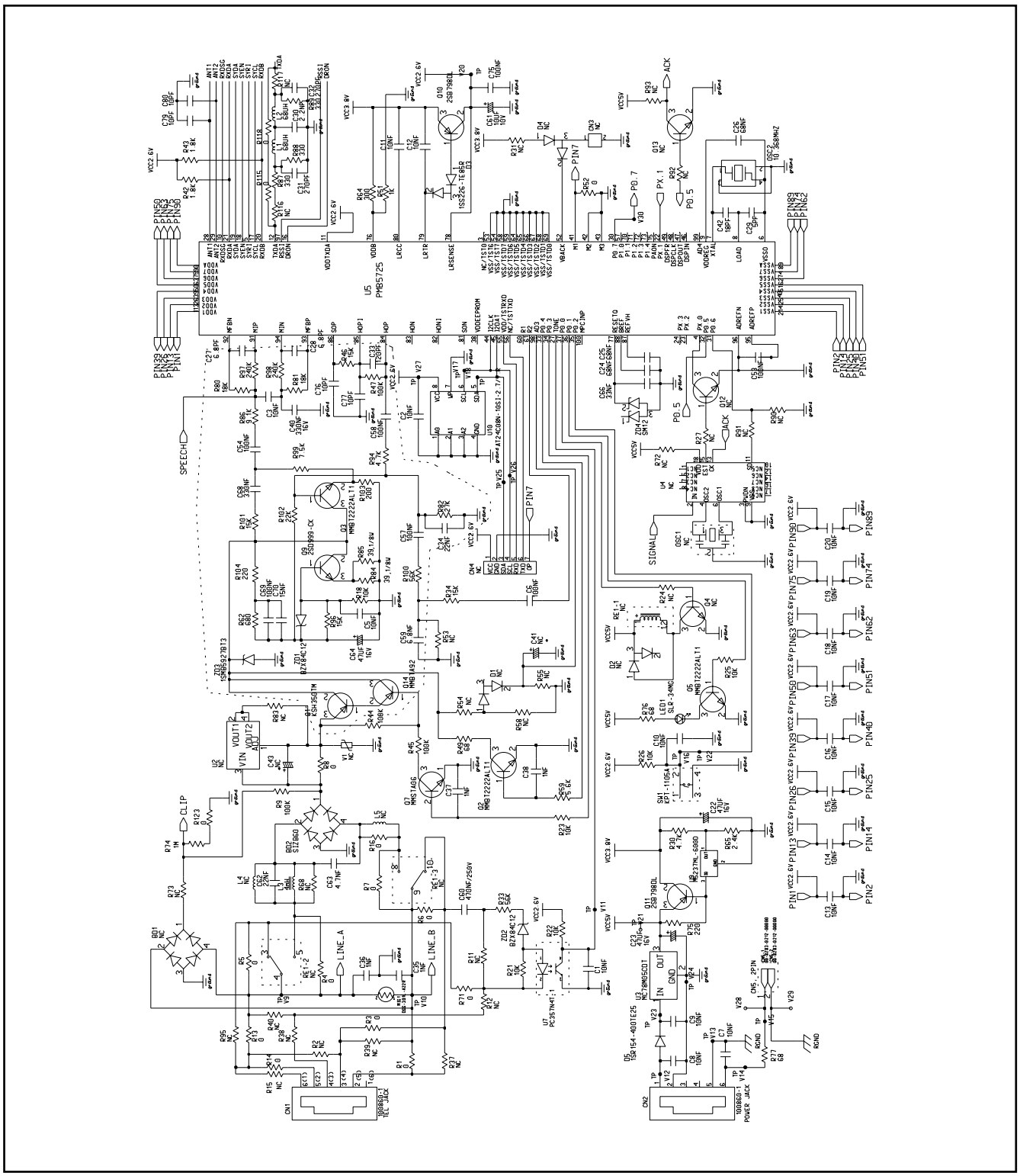
U9
K13
K14
K16
K19
K15
K17
K18
K10
K9
K11
K7
K6
K8
K4
K3
K5
K12
K1
K2


CN4
R2
R1
CN5

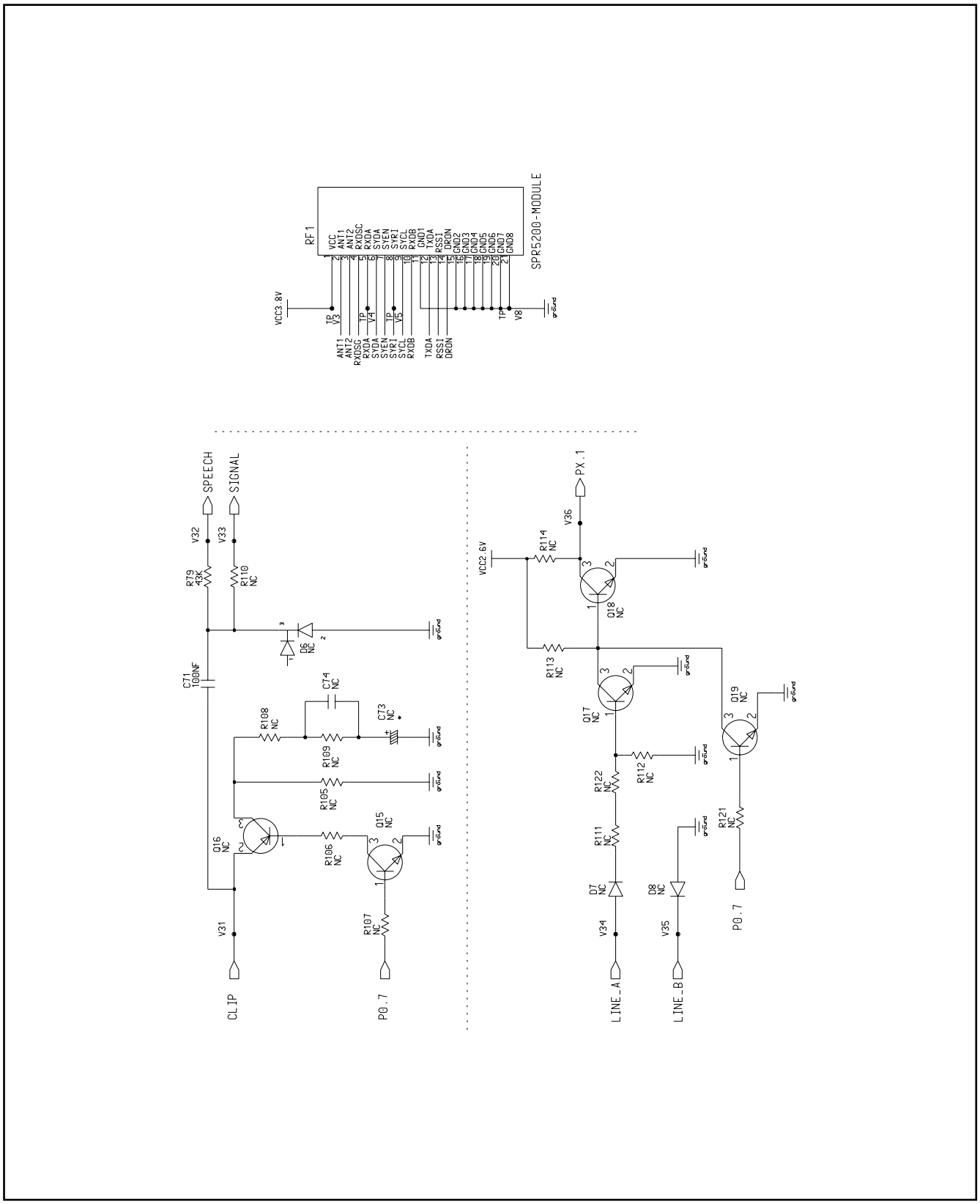

V3
V5
V4
C2
D2
V6
R3
Q1
V1
D1
V2

7. Schematic Diagrams

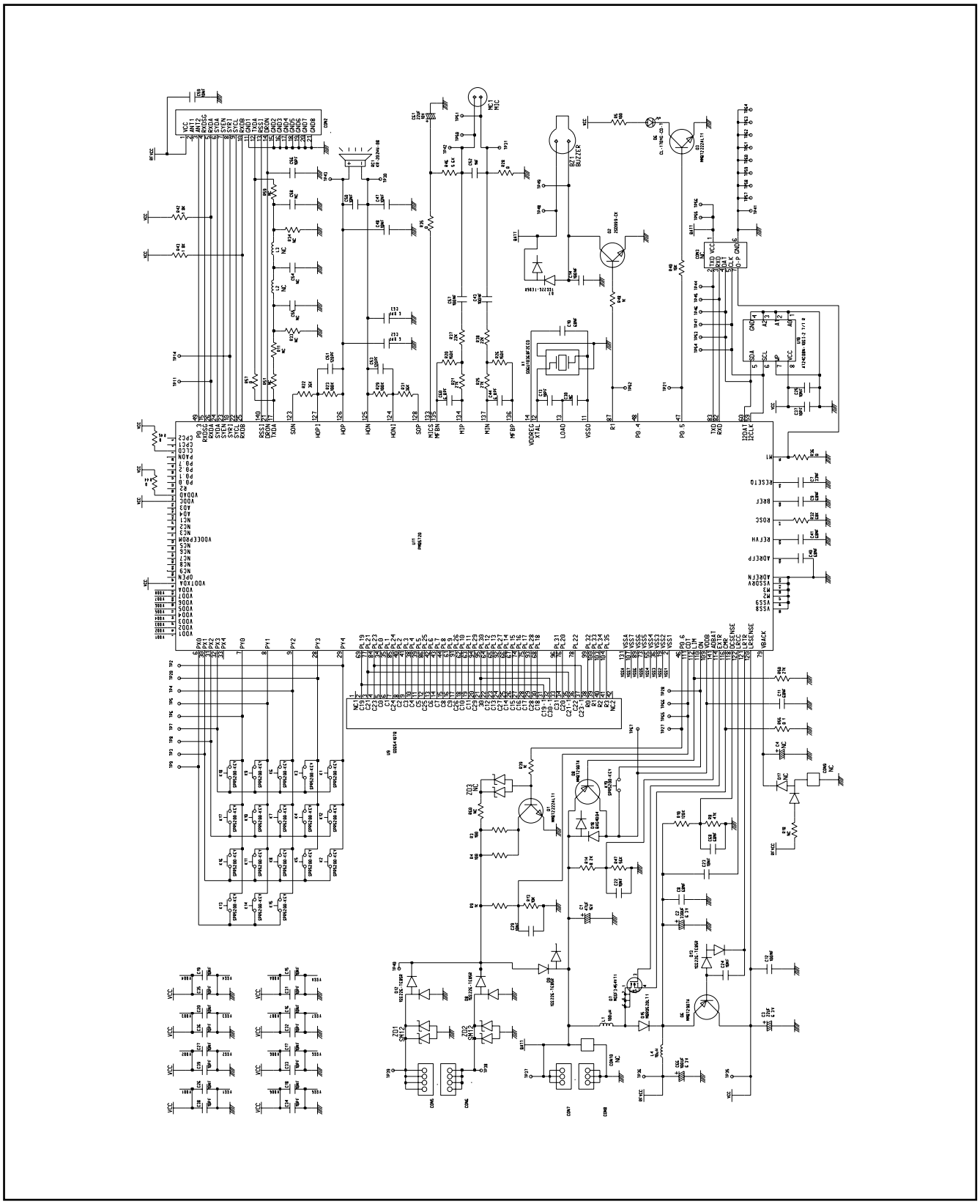
7-1 SP-R5200 BASE

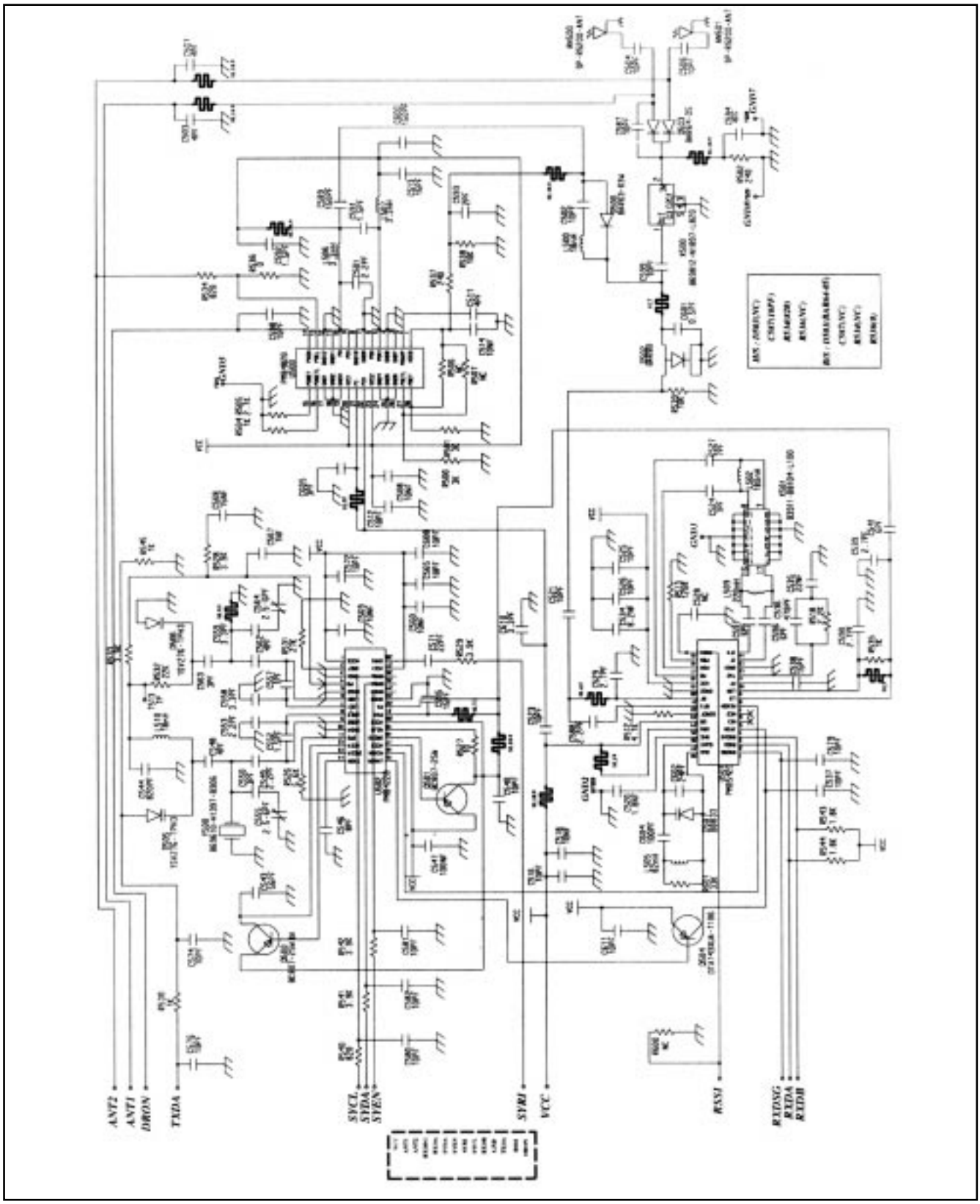


7-2 SP-R5200_CLIP CIRCUIT

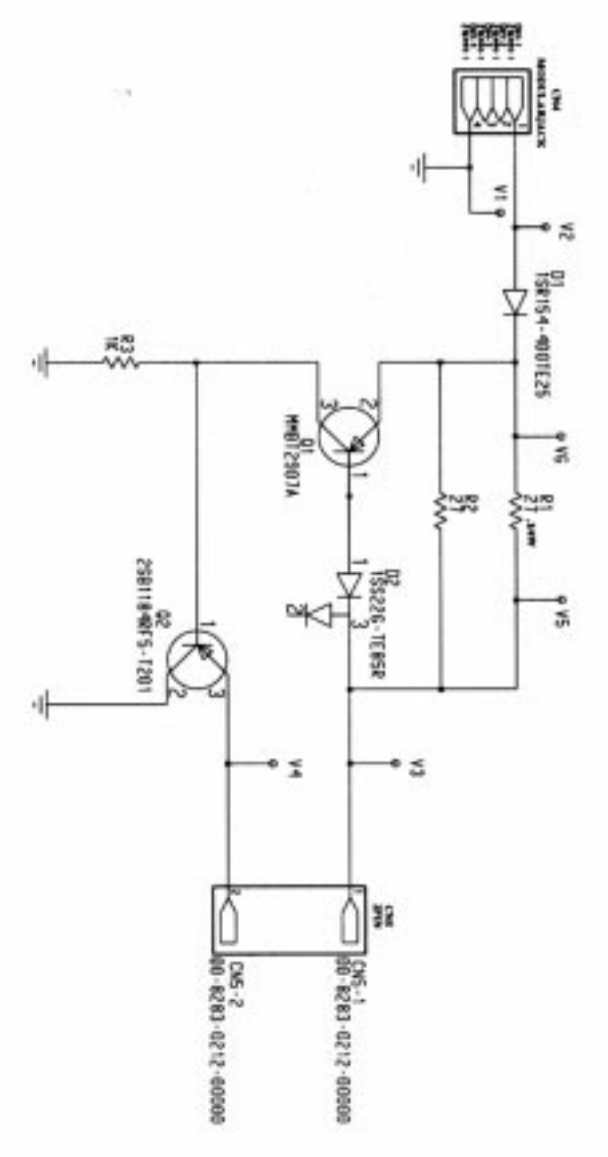


7-3 SP-R5200 HAND




ANT2
ANT1
DRON
TXDA
SYCL
SYDA
SYEN
SYRX
VCC
RSSI
RXDSG
RXDA
RXDB

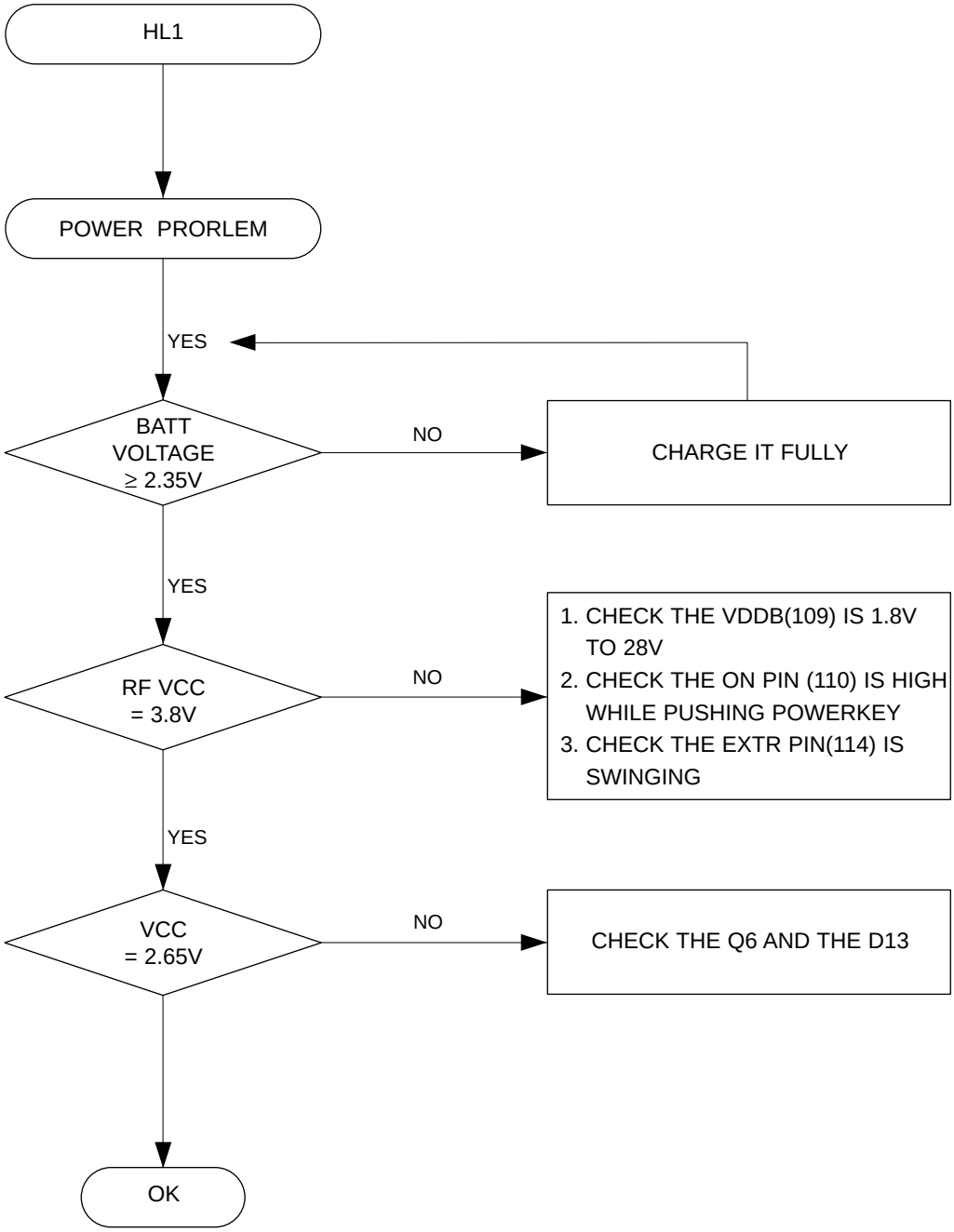
7-5 SP-R5200 CHARGER



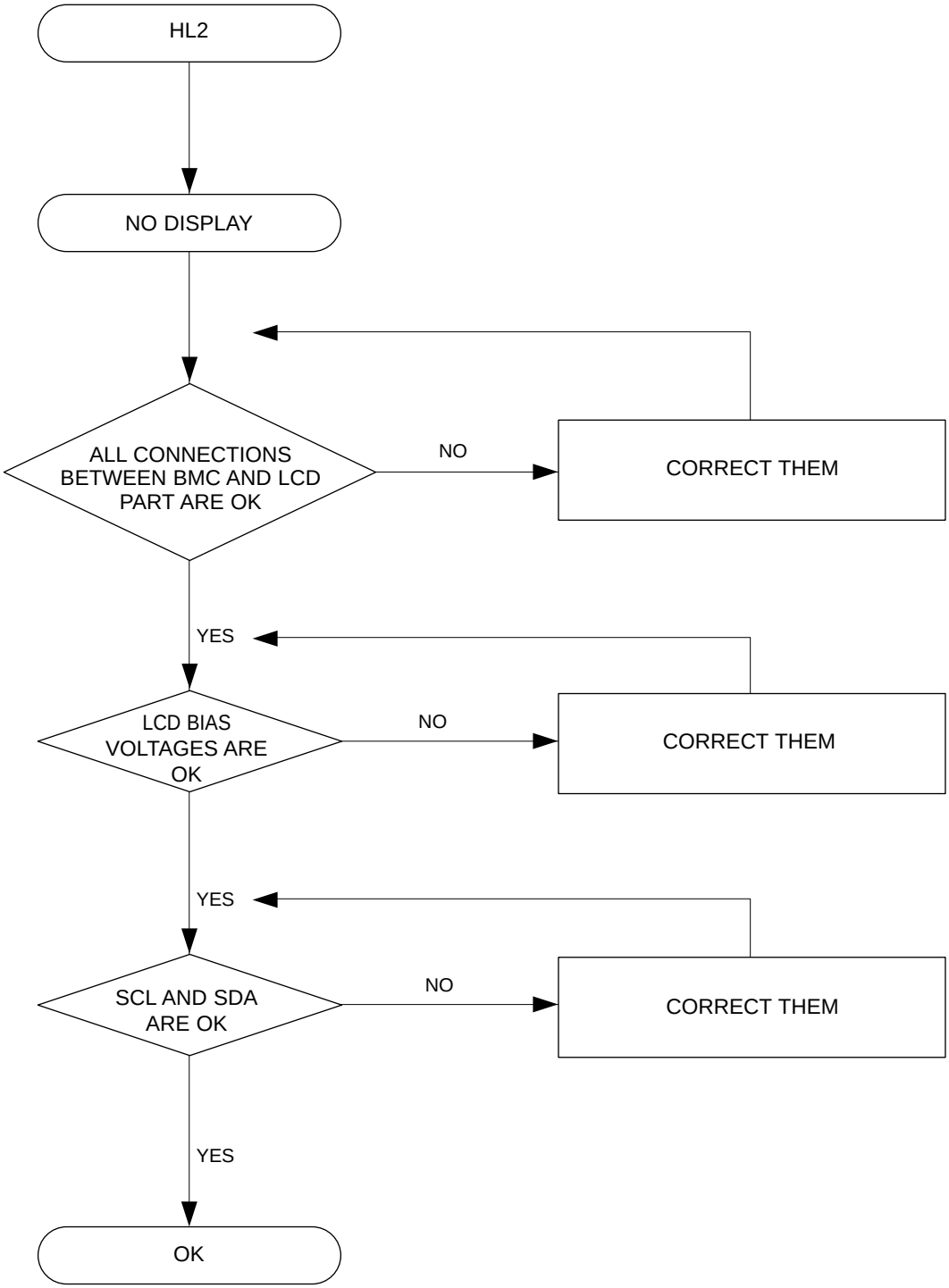
8. Trouble Shooting

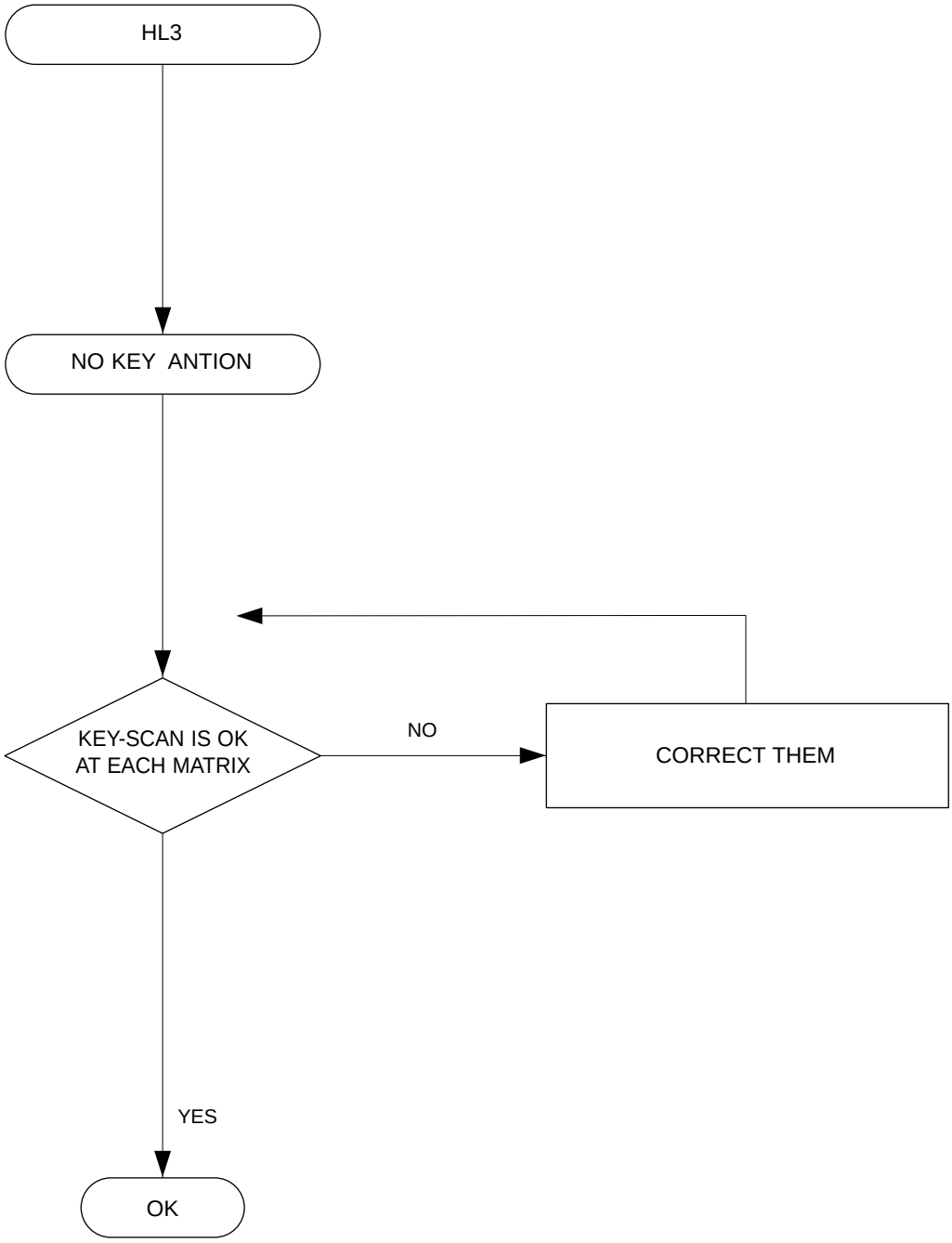
8-1 Trouble Shooting of Handset Logic

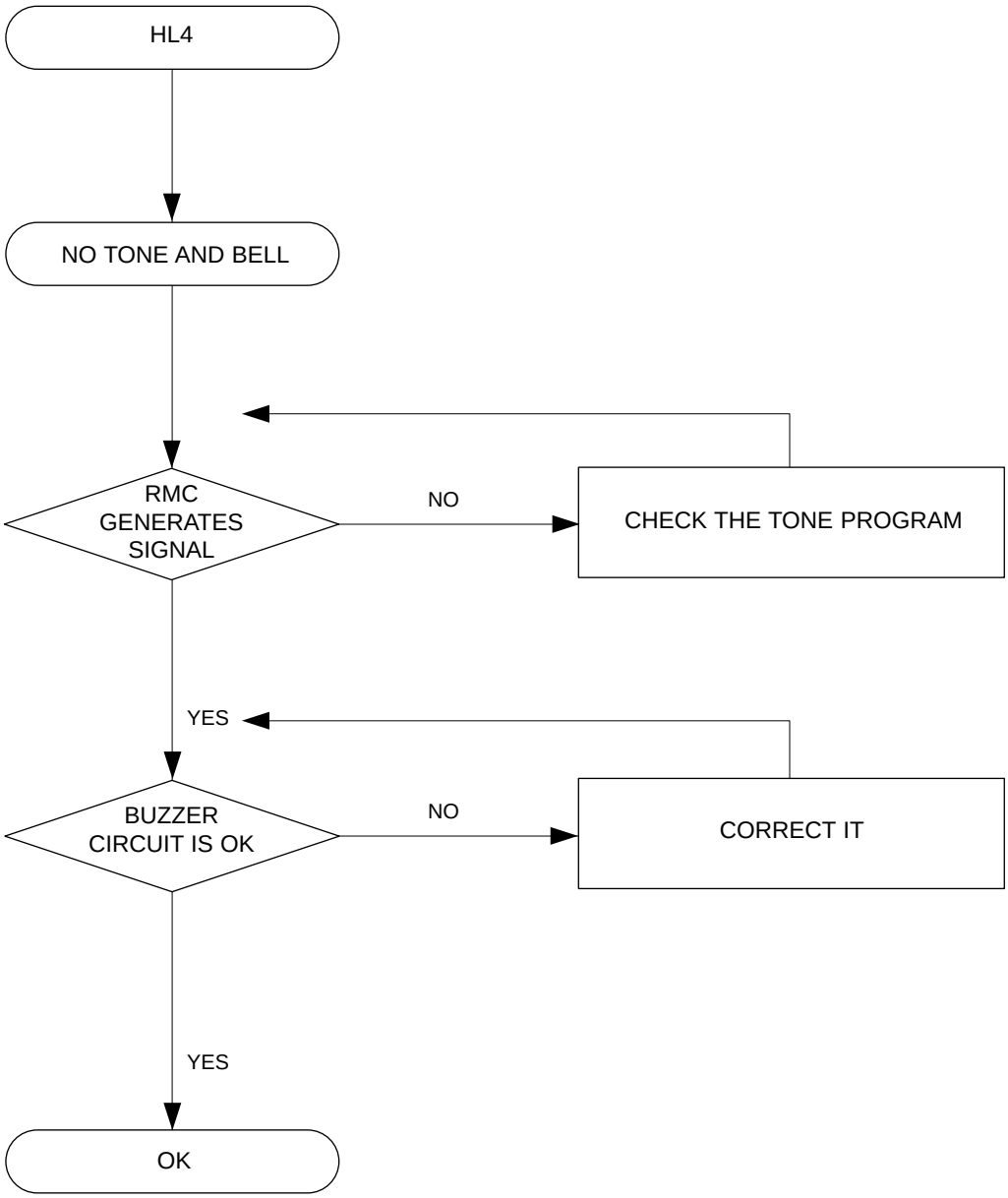
8-1-1 Power Problem

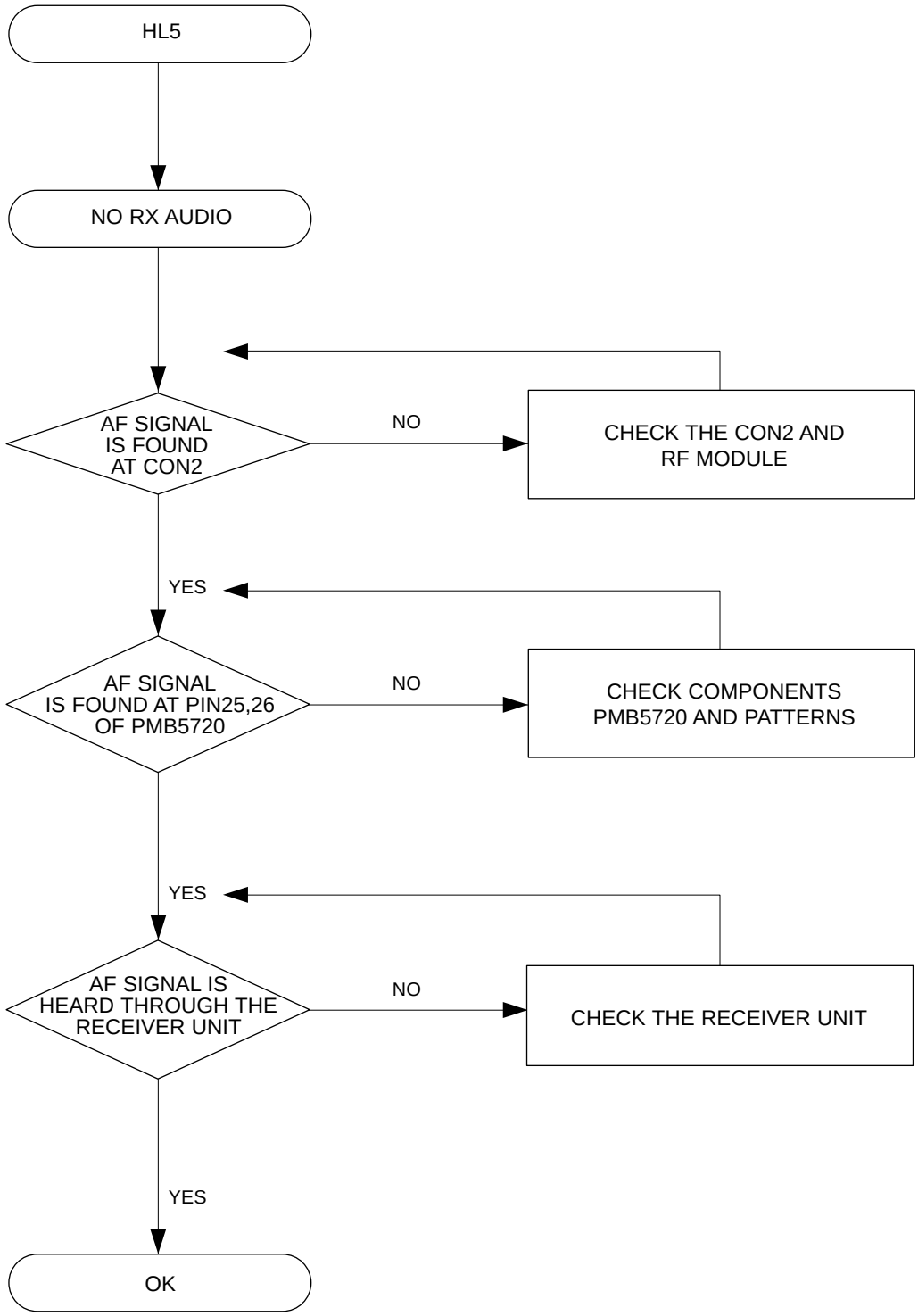


8-1-2 No Display

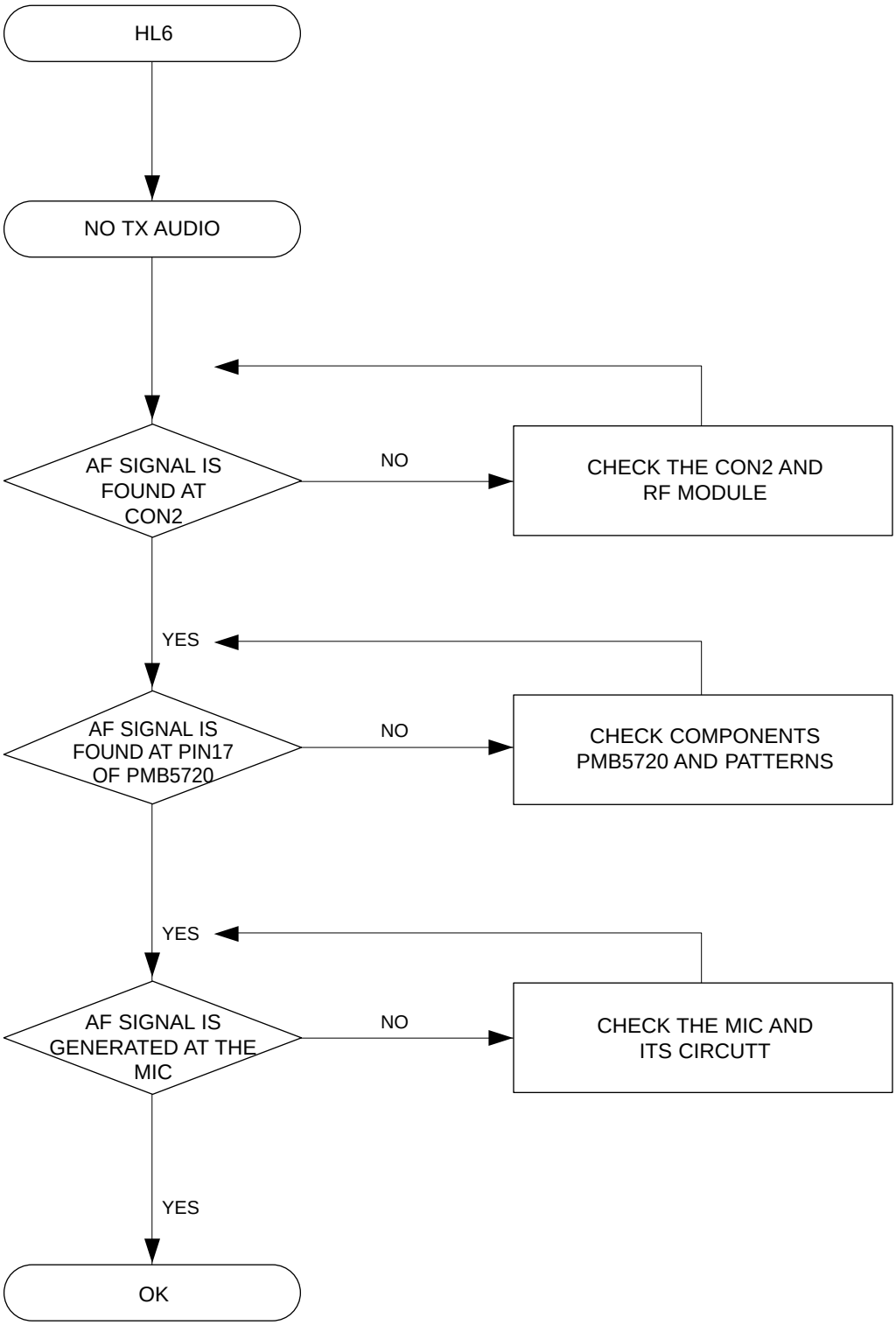



HL3
NO KEY ANTION
KEY-SCAN IS OK
AT EACH MATRIX
NO
CORRECT THEM
YES
OK


HL4
NO TONE AND BELL
RMC GENERATES SIGNAL
NO
CHECK THE TONE PROGRAM
YES
BUZZER CIRCUIT IS OK
NO
CORRECT IT
YES
OK

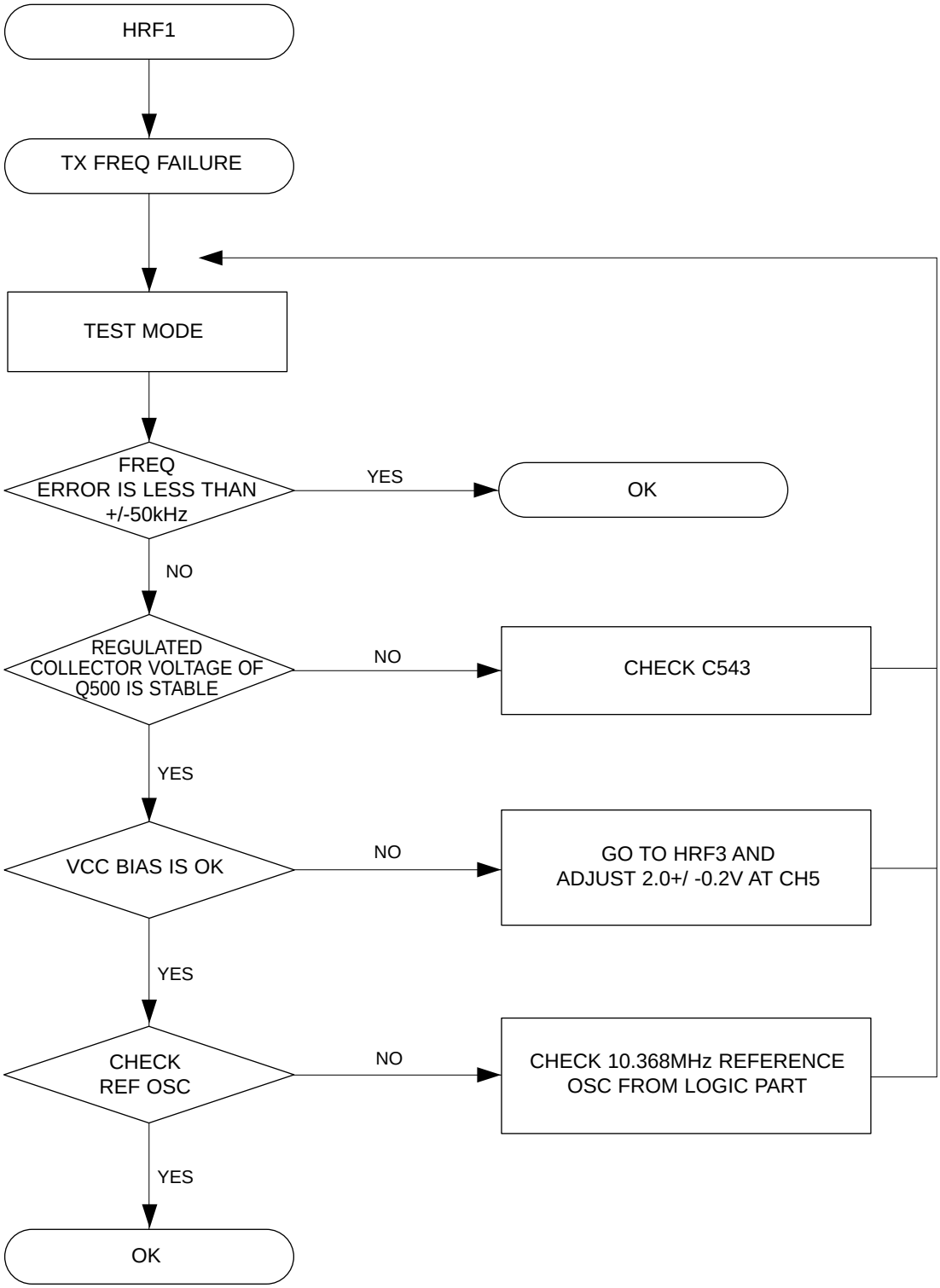

HL5
NO RX AUDIO
AF SIGNAL IS FOUND AT CON2
NO
CHECK THE CON2 AND RF MODULE
YES
AF SIGNAL IS FOUND AT PIN25,26 OF PMB5720
NO
CHECK COMPONENTS PMB5720 AND PATTERNS
YES
AF SIGNAL IS HEARD THROUGH THE RECEIVER UNIT
NO
CHECK THE RECEIVER UNIT
YES
OK

8-1-6 No Tx Audio

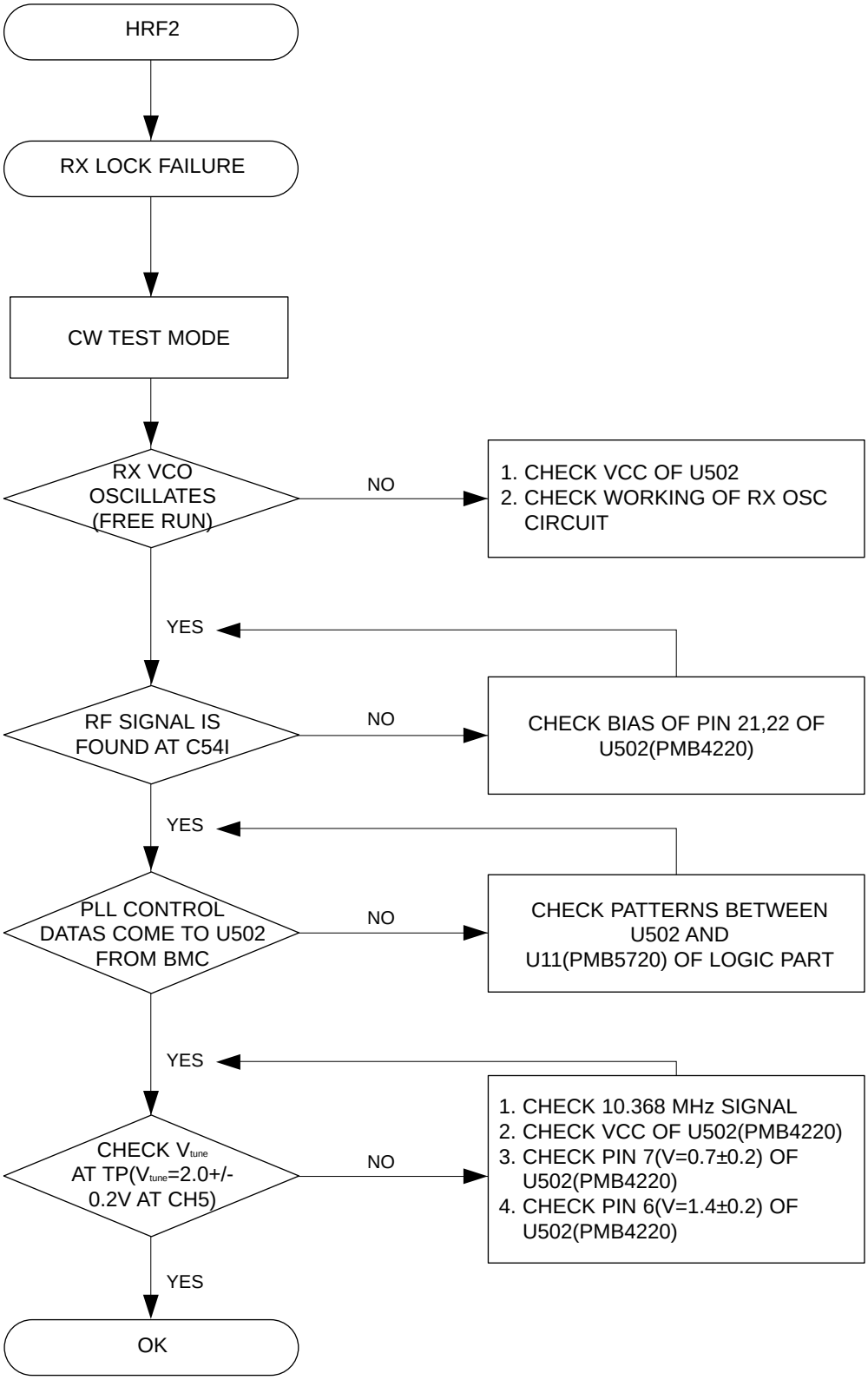


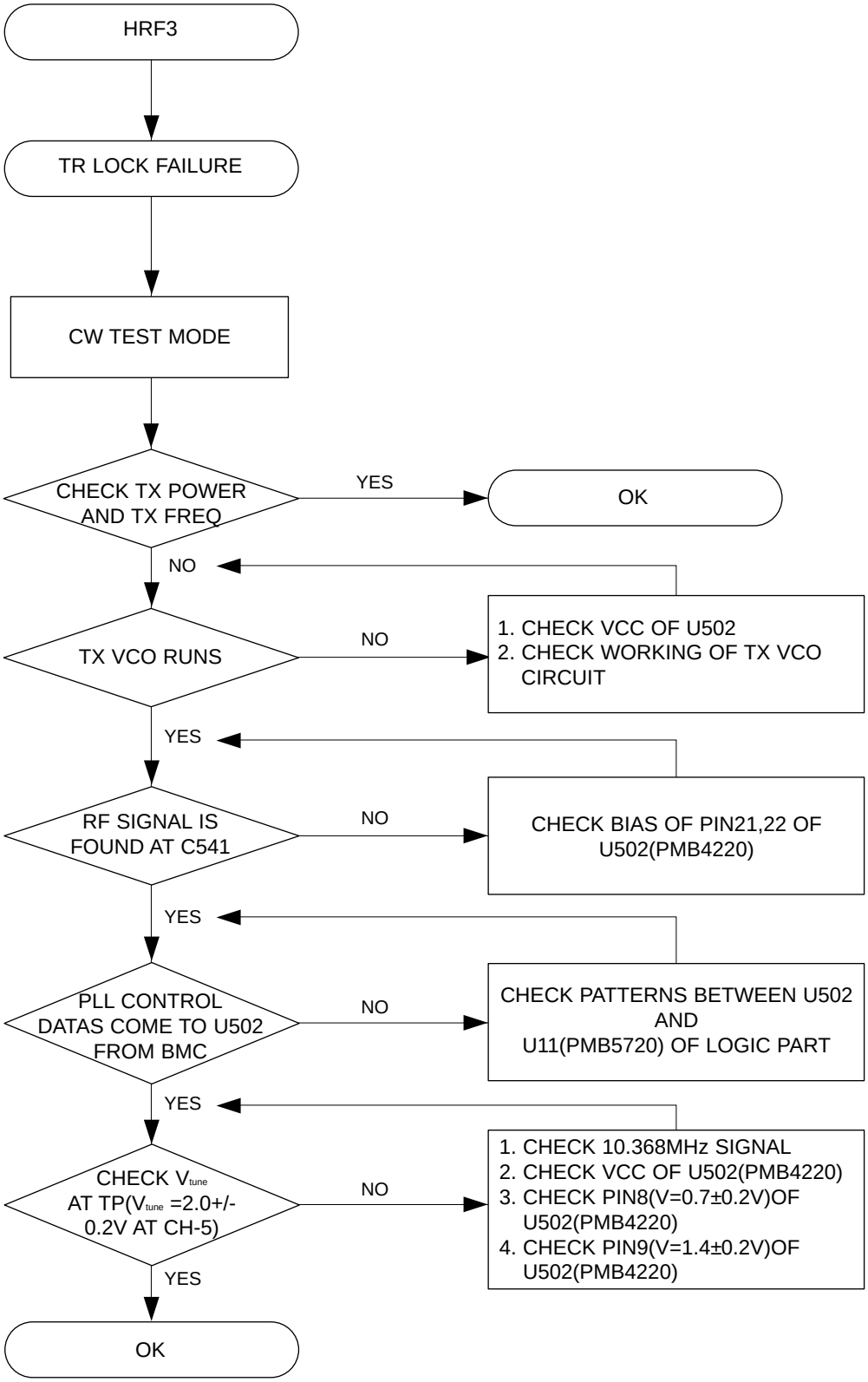
8-2 Trouble Shooting of Handset RF Module

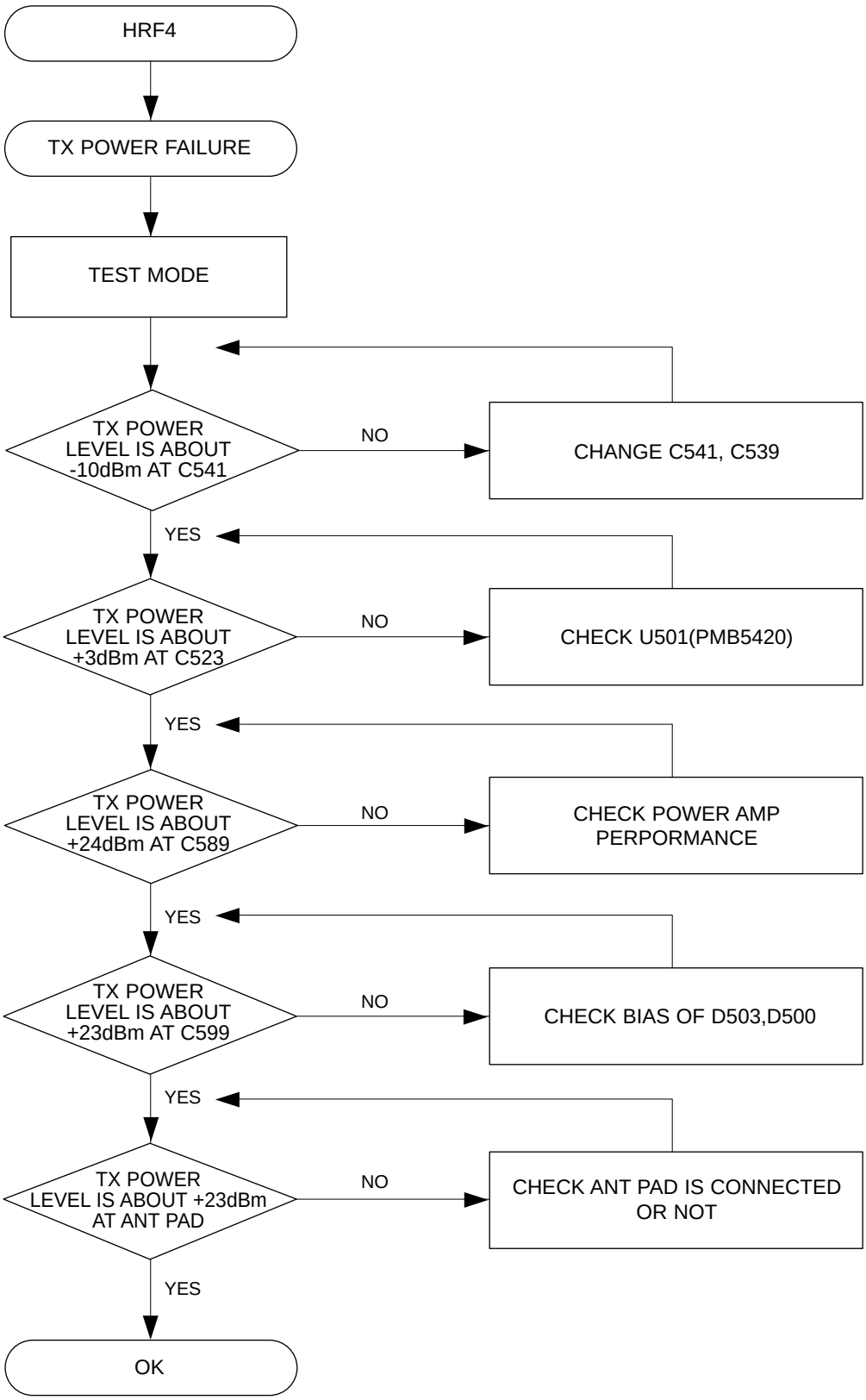
8-2-1 Tx Freg Failure



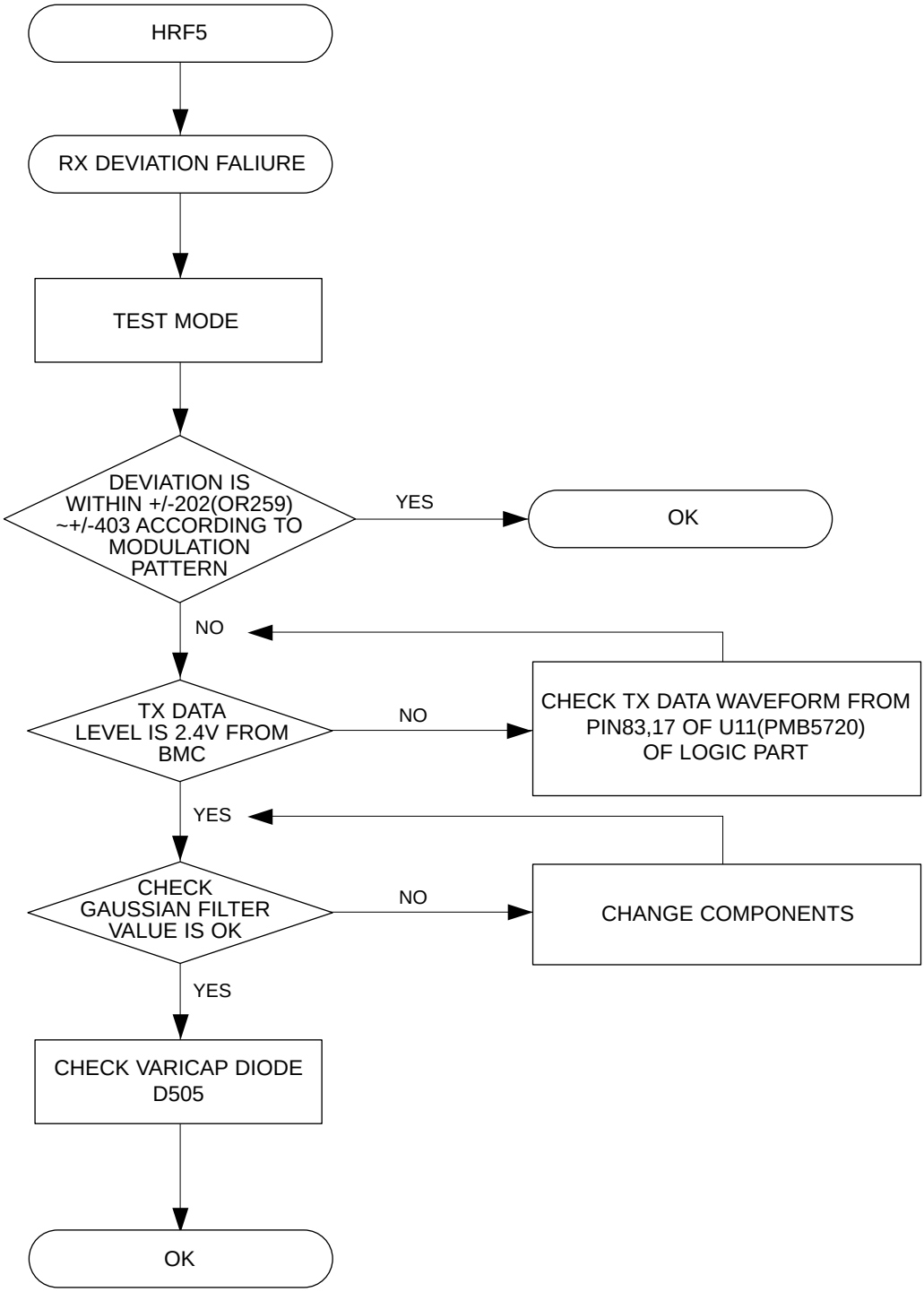
8-2-2 Rx Lock Failure

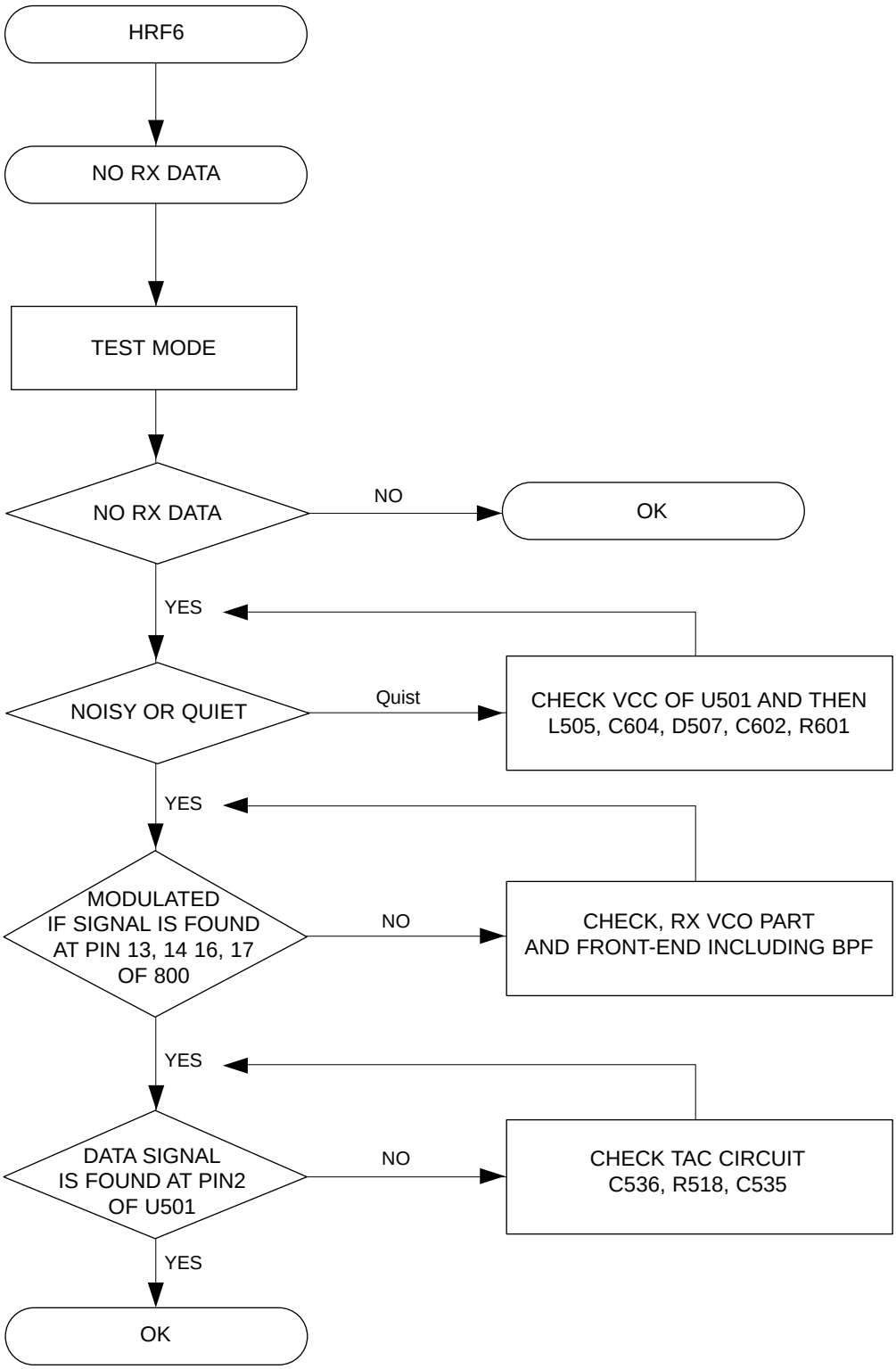


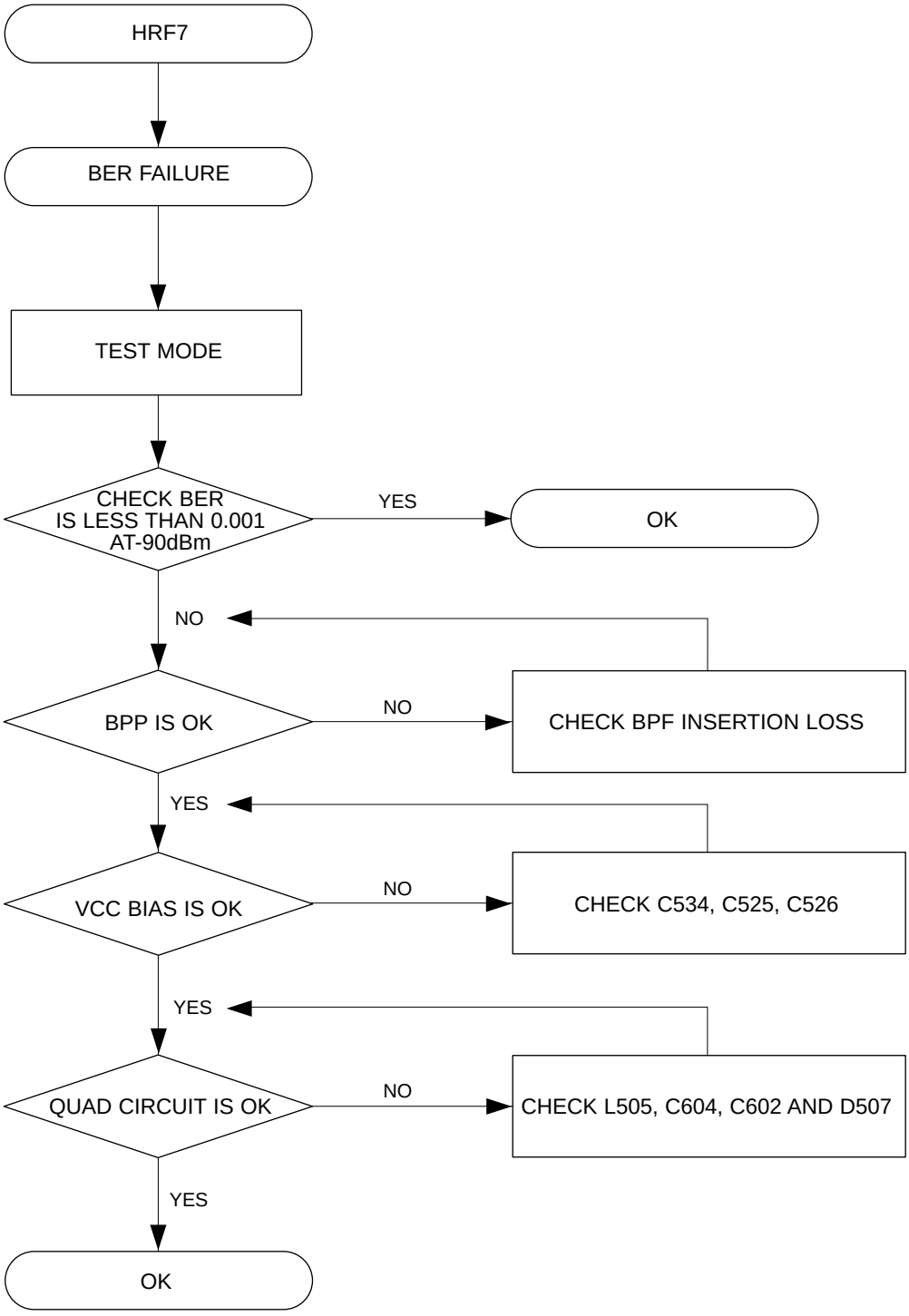

HRF3
TR LOCK FAILURE
CW TEST MODE
CHECK TX POWER AND TX FREQ
YES
OK
NO
TX VCO RUNS
NO
1. CHECK VCC OF U502
2. CHECK WORKING OF TX VCO CIRCUIT
YES
RF SIGNAL IS FOUND AT C541
NO
CHECK BIAS OF PIN21,22 OF U502(PMB4220)
YES
PLL CONTROL DATAS COME TO U502 FROM BMC
NO
CHECK PATTERNS BETWEEN U502 AND U11(PMB5720) OF LOGIC PART
YES
CHECK Vtune AT TP(Vtune =2.0+/- 0.2V AT CH-5)
NO
1. CHECK 10.368MHz SIGNAL
2. CHECK VCC OF U502(PMB4220)
3. CHECK PIN8(V=0.7±0.2V)OF U502(PMB4220)
4. CHECK PIN9(V=1.4±0.2V)OF U502(PMB4220)
YES
OK


HRF4
TX POWER FAILURE
TEST MODE
TX POWER LEVEL IS ABOUT -10dBm AT C541
NO
CHANGE C541, C539
YES
TX POWER LEVEL IS ABOUT +3dBm AT C523
NO
CHECK U501(PMB5420)
YES
TX POWER LEVEL IS ABOUT +24dBm AT C589
NO
CHECK POWER AMP PERPORMANCE
YES
TX POWER LEVEL IS ABOUT +23dBm AT C599
NO
CHECK BIAS OF D503,D500
YES
TX POWER LEVEL IS ABOUT +23dBm AT ANT PAD
NO
CHECK ANT PAD IS CONNECTED OR NOT
YES
OK

8-2-5 Tx Deviatim Failure

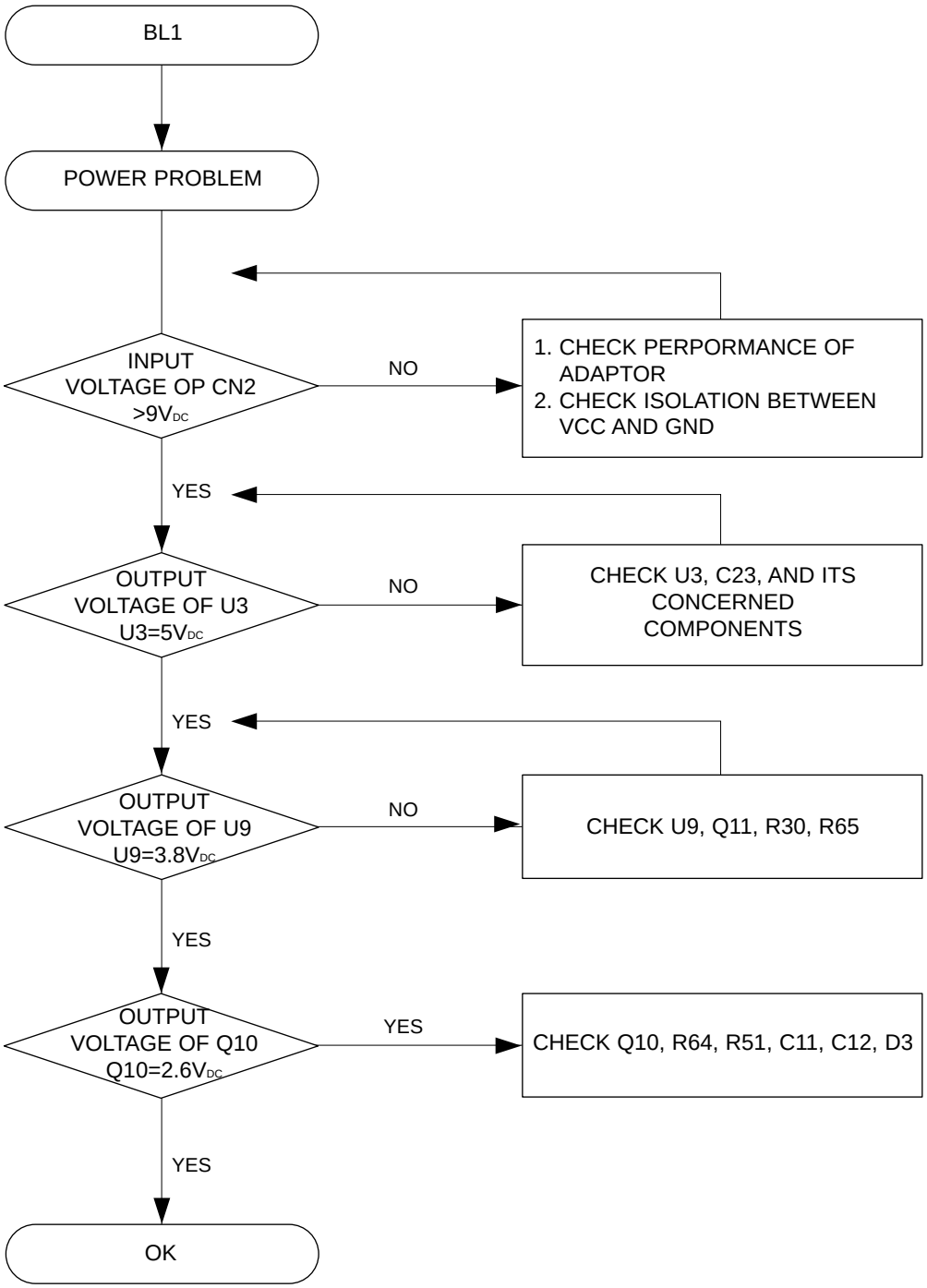


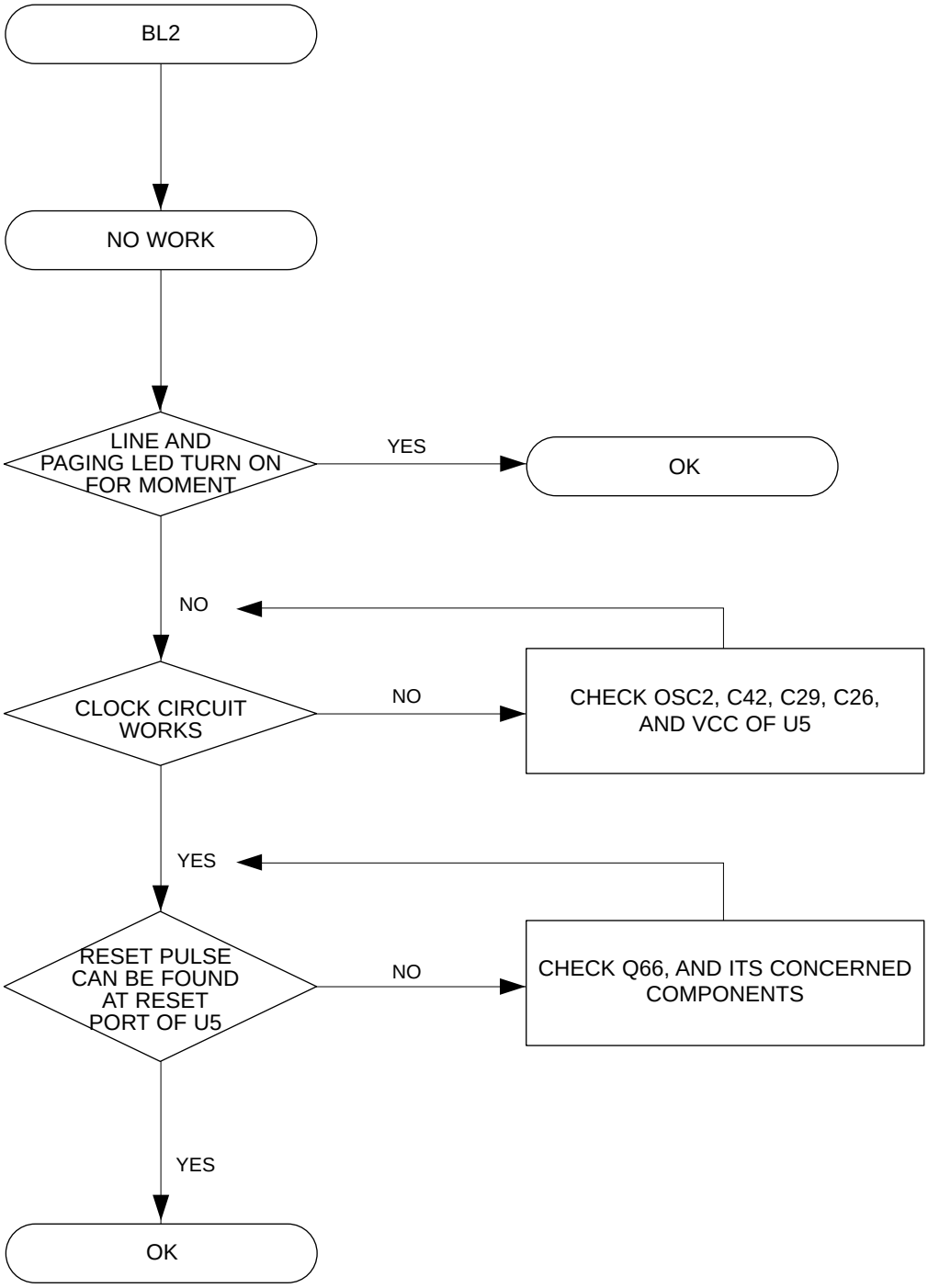

HRF6
NO RX DATA
TEST MODE
NO RX DATA
NO
OK
YES
NOISY OR QUIET
Quist
CHECK VCC OF U501 AND THEN
L505, C604, D507, C602, R601
YES
MODULATED
IF SIGNAL IS FOUND
AT PIN 13, 14 16, 17
OF 800
NO
CHECK, RX VCO PART
AND FRONT-END INCLUDING BPF
YES
DATA SIGNAL
IS FOUND AT PIN2
OF U501
NO
CHECK TAC CIRCUIT
C536, R518, C535
YES
OK

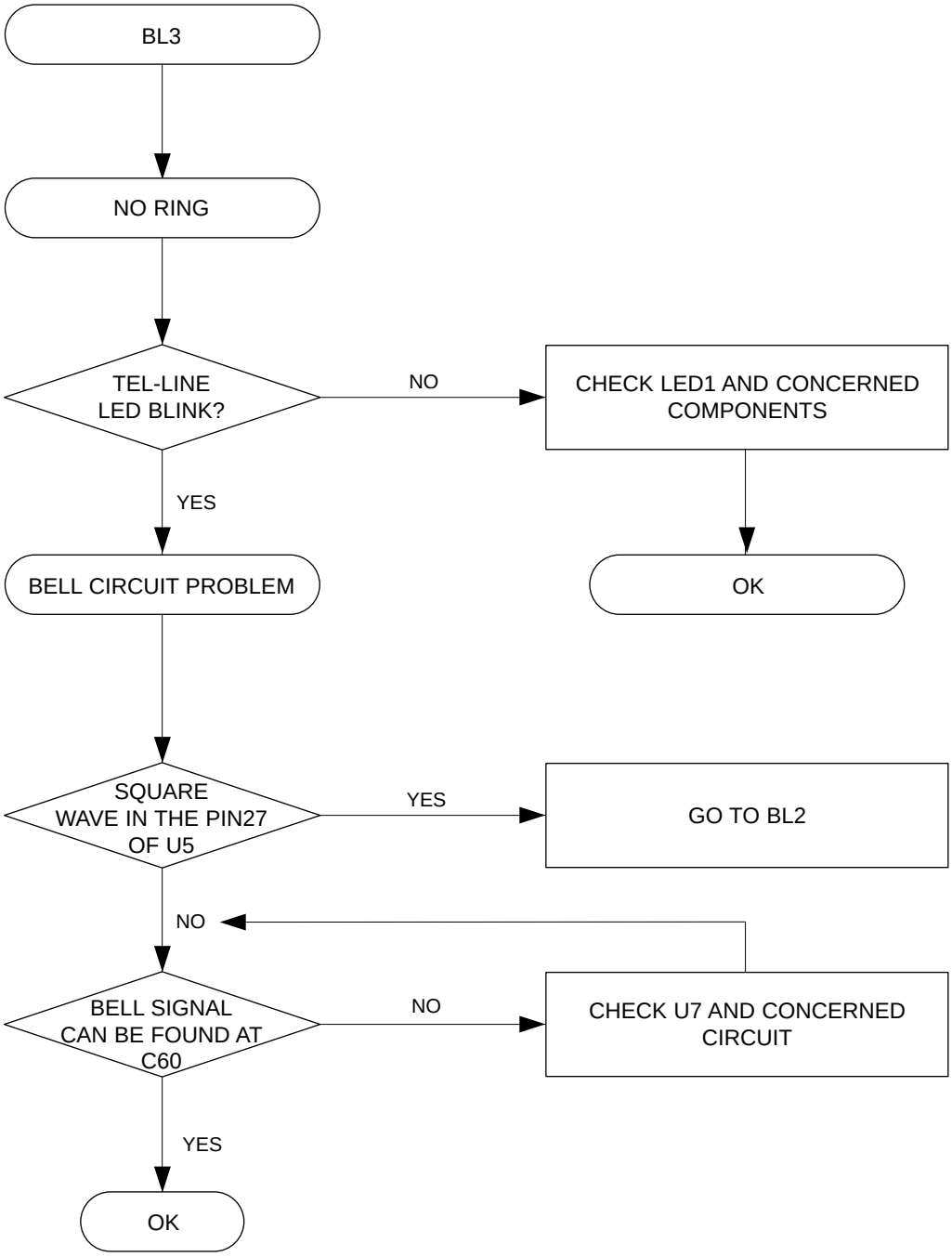

HRF7
BER FAILURE
TEST MODE
CHECK BER
IS LESS THAN 0.001
AT-90dBm
YES
OK
NO
BPP IS OK
NO
CHECK BPF INSERTION LOSS
YES
VCC BIAS IS OK
NO
CHECK C534, C525, C526
YES
QUAD CIRCUIT IS OK
NO
CHECK L505, C604, C602 AND D507
YES
OK

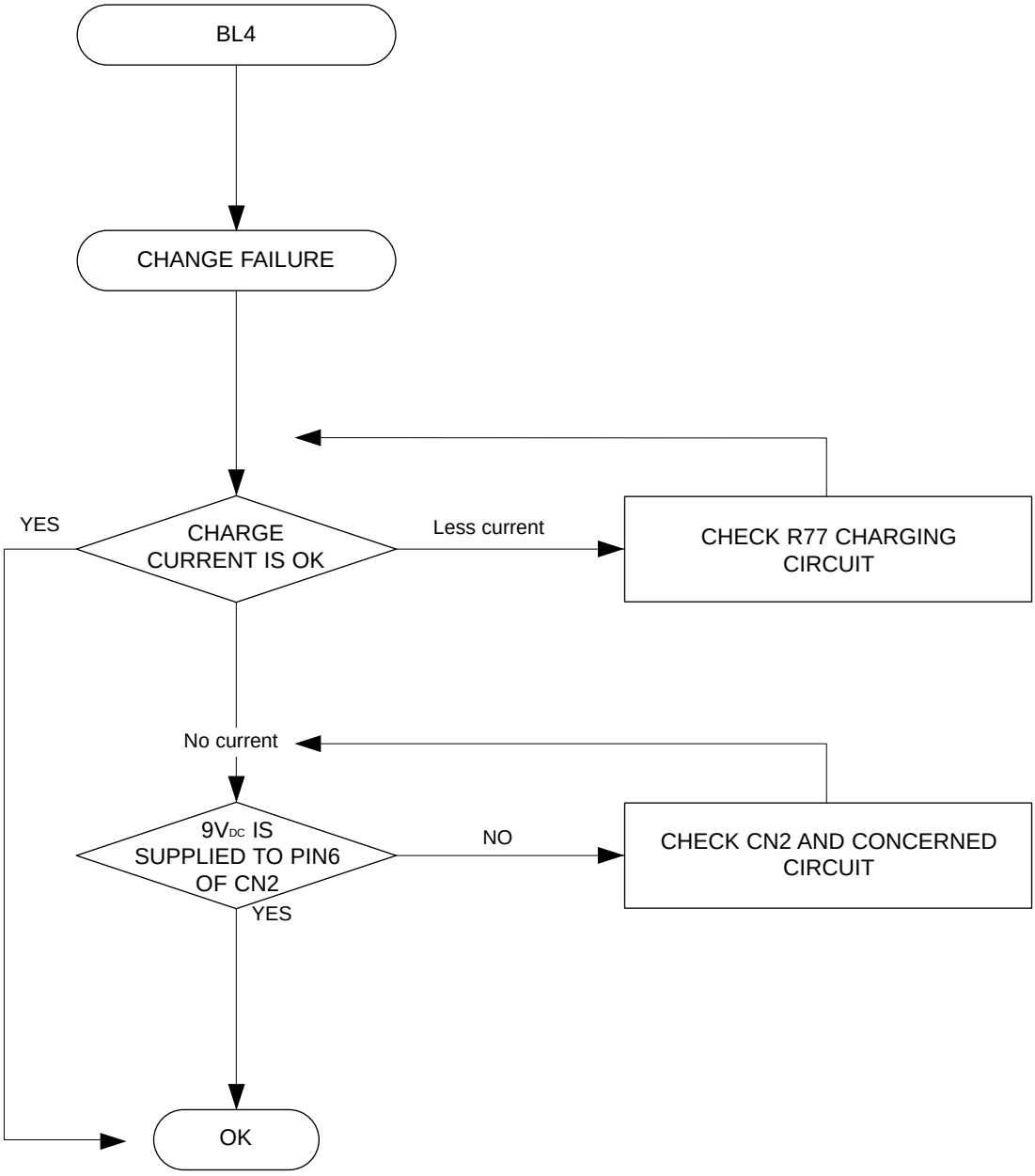
8-3 Trouble Shooting of Baseset

8-3-1 Power Problem

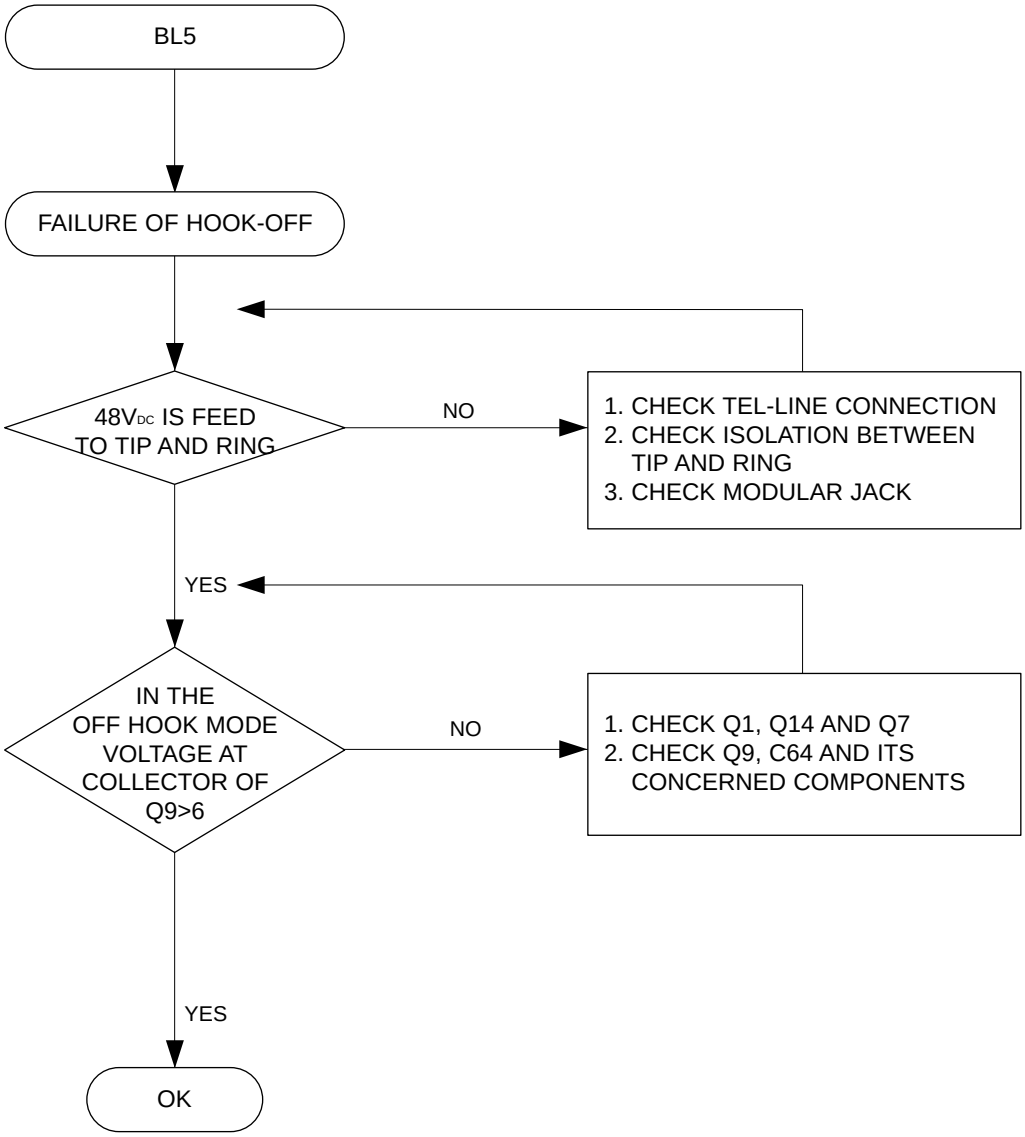


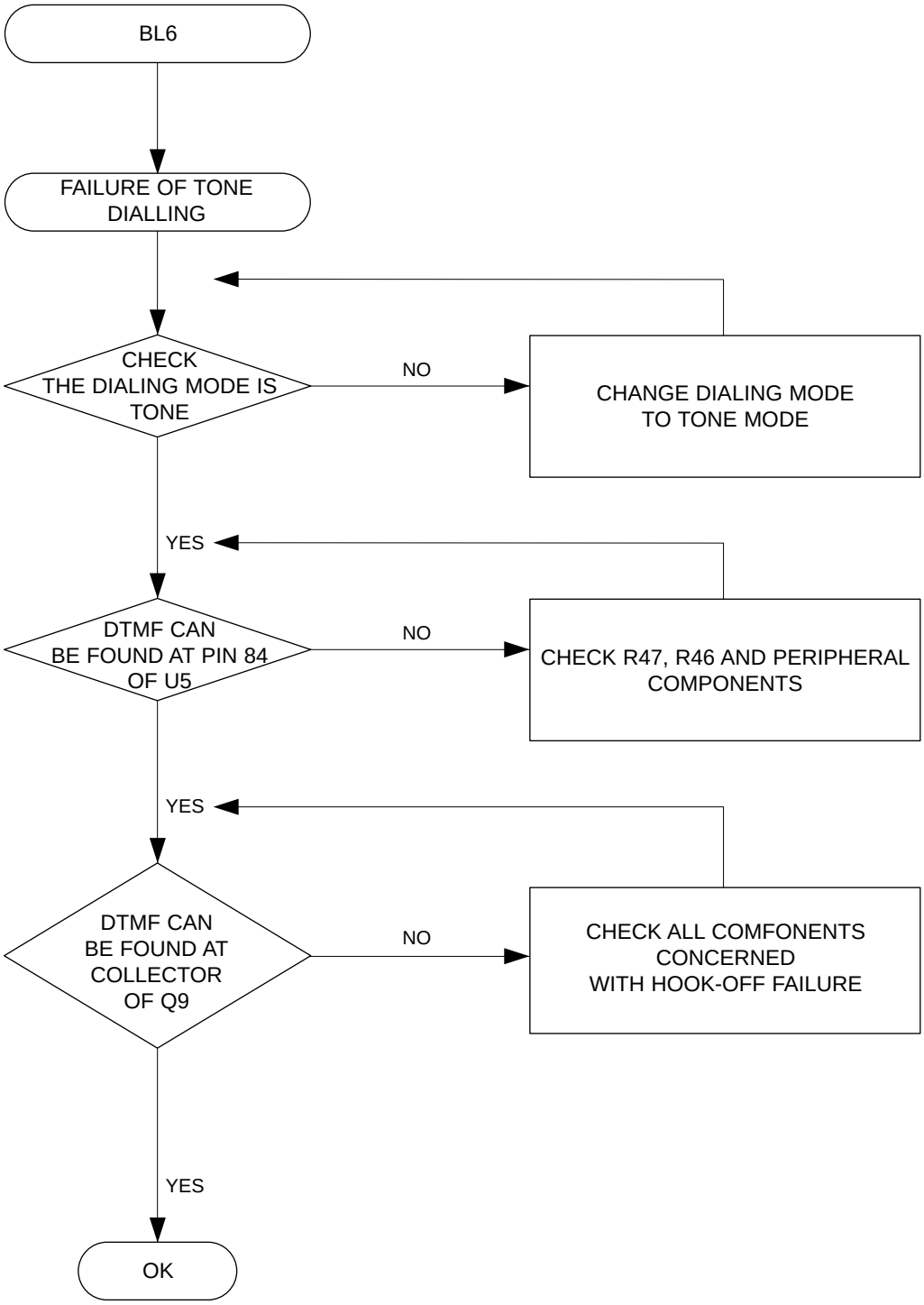

BL2
NO WORK
LINE AND PAGING LED TURN ON FOR MOMENT
YES
OK
NO
CLOCK CIRCUIT WORKS
NO
CHECK OSC2, C42, C29, C26, AND VCC OF U5
YES
RESET PULSE CAN BE FOUND AT RESET PORT OF U5
NO
CHECK Q66, AND ITS CONCERNED COMPONENTS
YES
OK

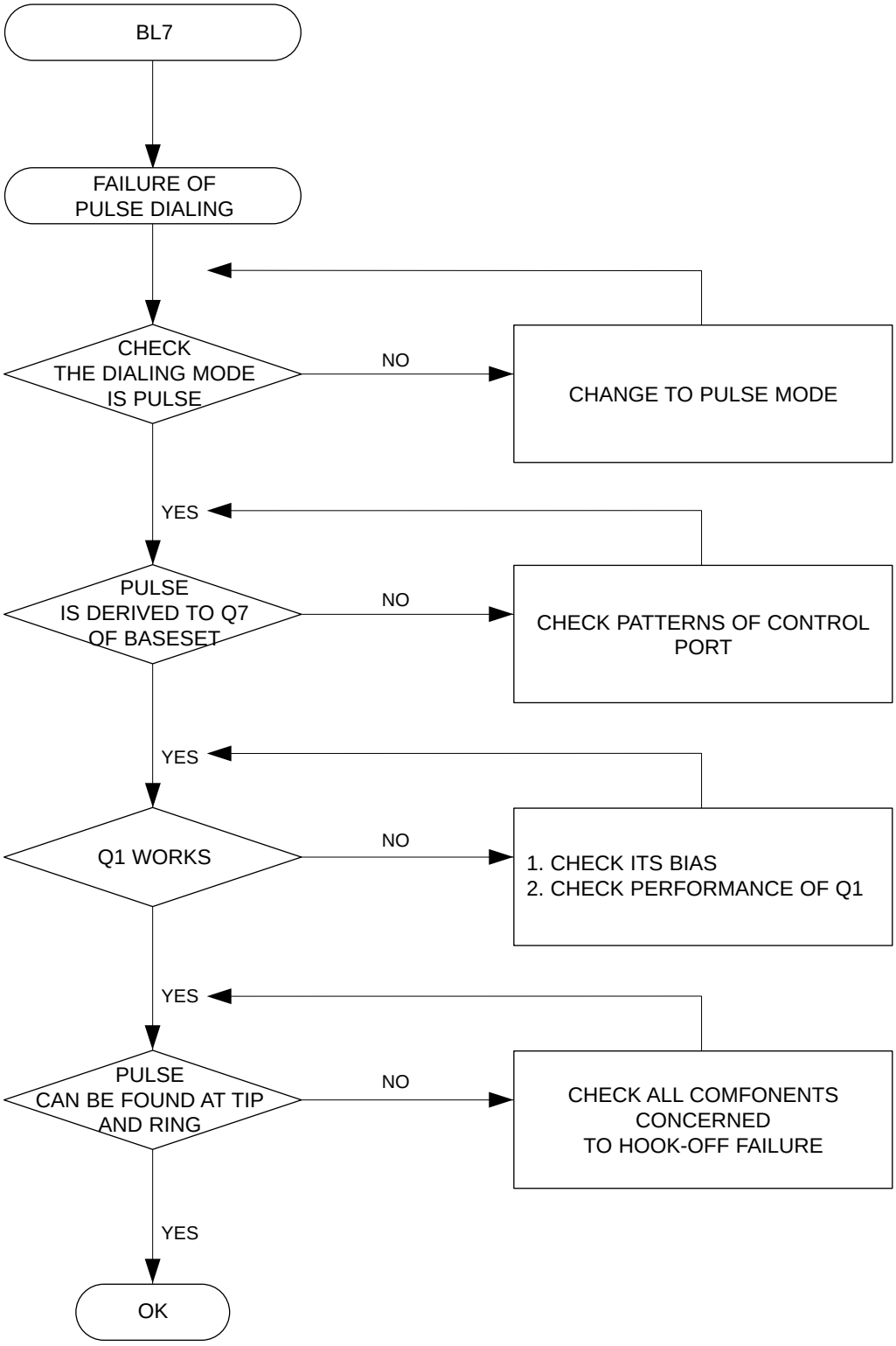

BL3
NO RING
TEL-LINE
LED BLINK?
NO
CHECK LED1 AND CONCERNED
COMPONENTS
YES
BELL CIRCUIT PROBLEM
OK
SQUARE
WAVE IN THE PIN27
OF U5
YES
GO TO BL2
NO
BELL SIGNAL
CAN BE FOUND AT
C60
NO
CHECK U7 AND CONCERNED
CIRCUIT
YES
OK

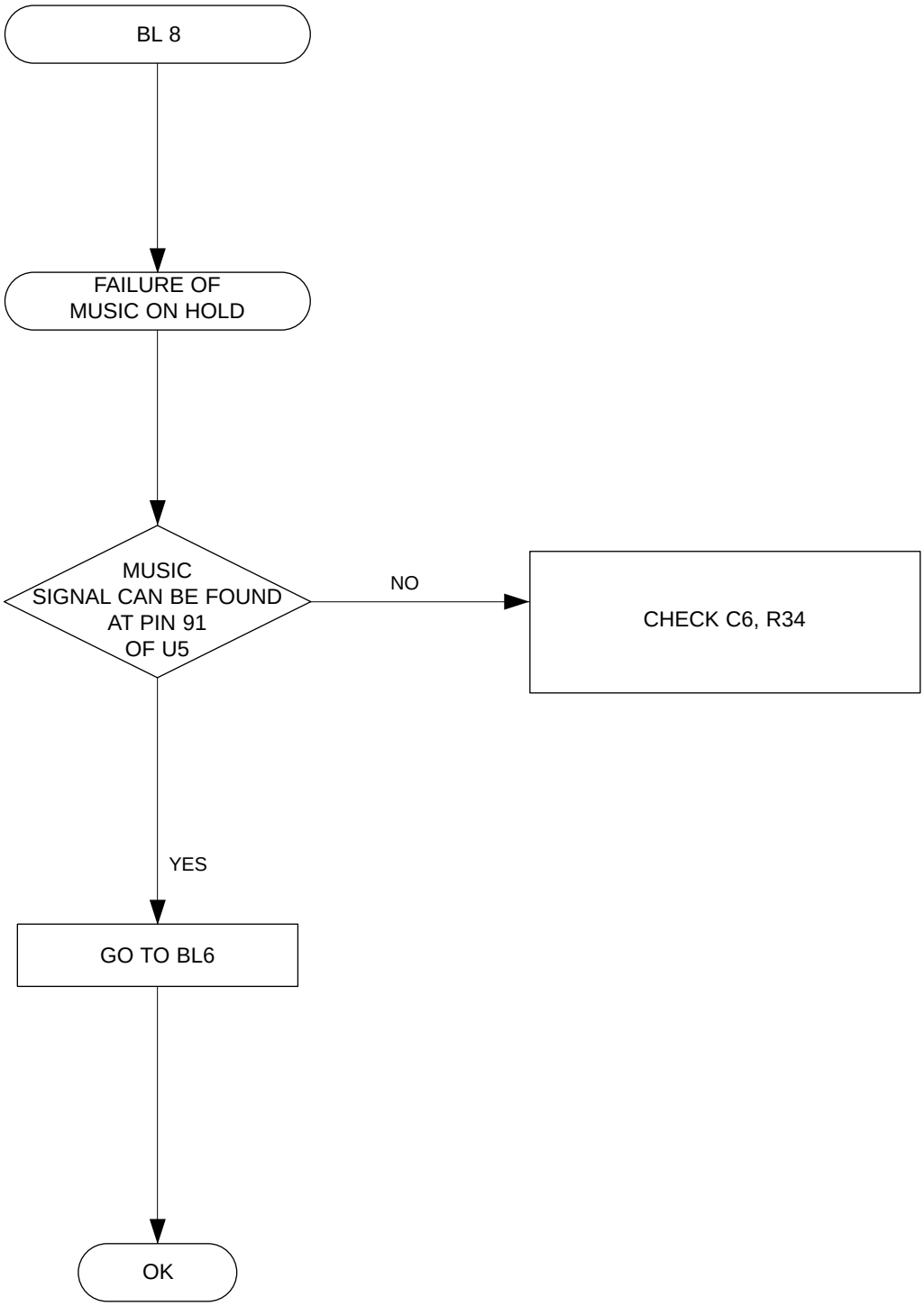

BL4
CHANGE FAILURE
YES
CHARGE CURRENT IS OK
Less current
CHECK R77 CHARGING CIRCUIT
No current
9VDC IS SUPPLIED TO PIN6 OF CN2
NO
CHECK CN2 AND CONCERNED CIRCUIT
YES
OK

8-3-5 Failure of Hook-off

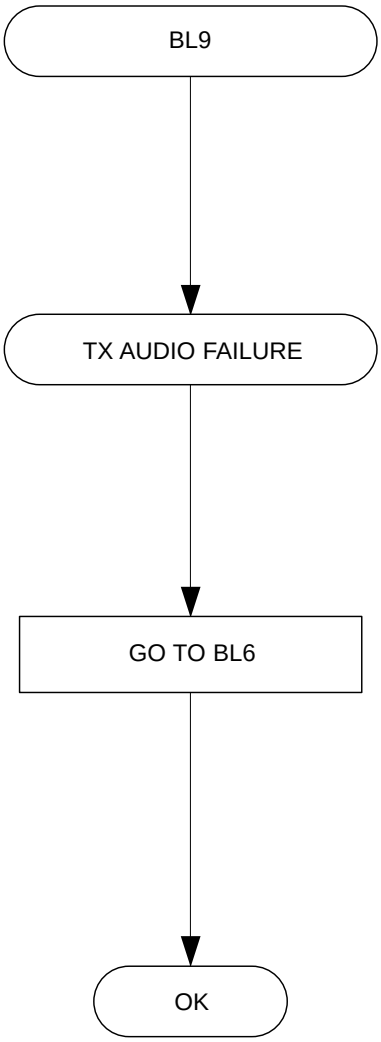


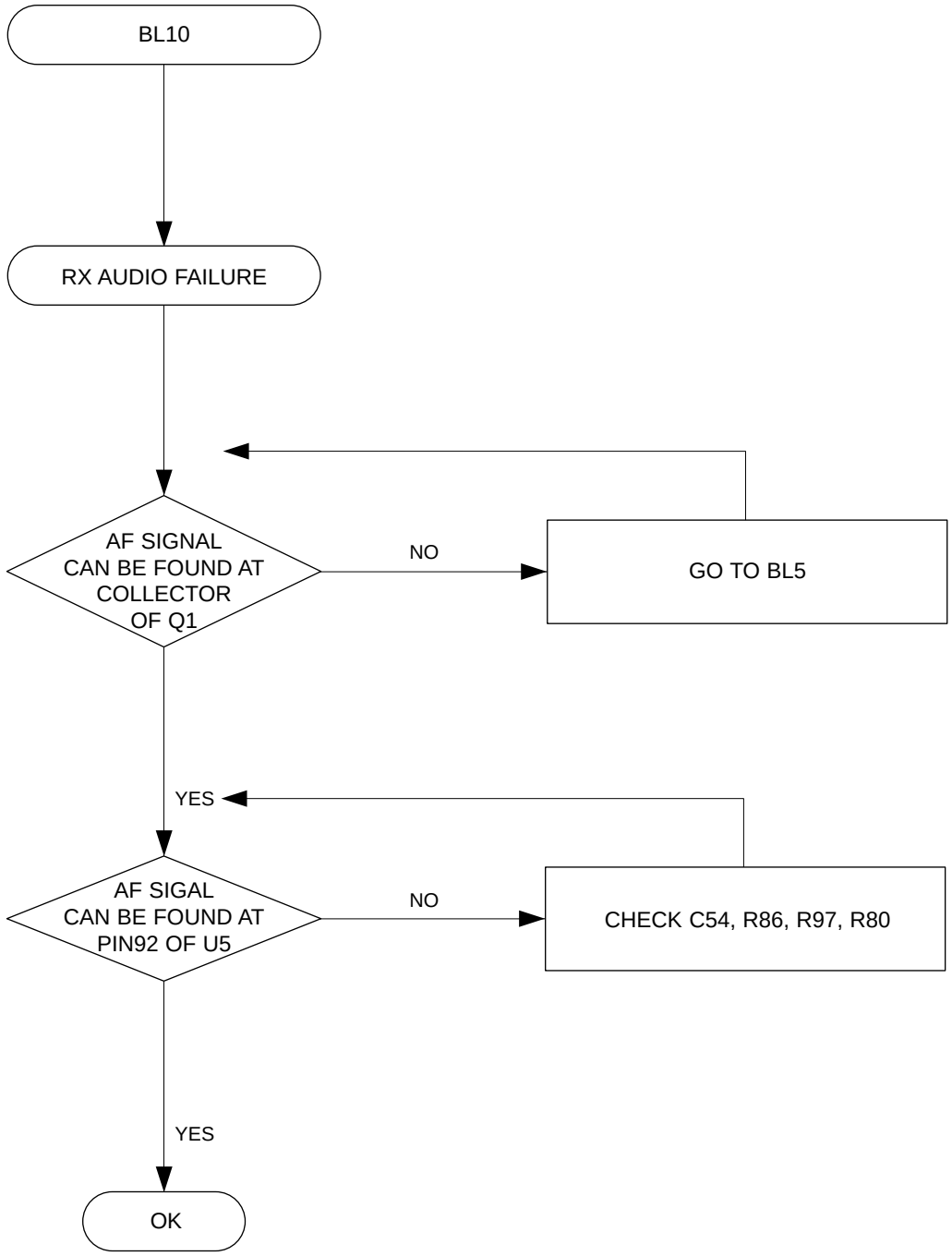

BL6
FAILURE OF TONE DIALLING
CHECK THE DIALING MODE IS TONE
NO
CHANGE DIALING MODE TO TONE MODE
YES
DTMF CAN BE FOUND AT PIN 84 OF U5
NO
CHECK R47, R46 AND PERIPHERAL COMPONENTS
YES
DTMF CAN BE FOUND AT COLLECTOR OF Q9
NO
CHECK ALL COMFONENTS CONCERNED WITH HOOK-OFF FAILURE
YES
OK


BL7
FAILURE OF PULSE DIALING
CHECK THE DIALING MODE IS PULSE
NO
CHANGE TO PULSE MODE
YES
PULSE IS DERIVED TO Q7 OF BASESET
NO
CHECK PATTERNS OF CONTROL PORT
YES
Q1 WORKS
NO
1. CHECK ITS BIAS
2. CHECK PERFORMANCE OF Q1
YES
PULSE CAN BE FOUND AT TIP AND RING
NO
CHECK ALL COMFONENTS CONCERNED TO HOOK-OFF FAILURE
YES
OK


BL 8
FAILURE OF
MUSIC ON HOLD
MUSIC
SIGNAL CAN BE FOUND
AT PIN 91
OF U5
NO
CHECK C6, R34
YES
GO TO BL6
OK

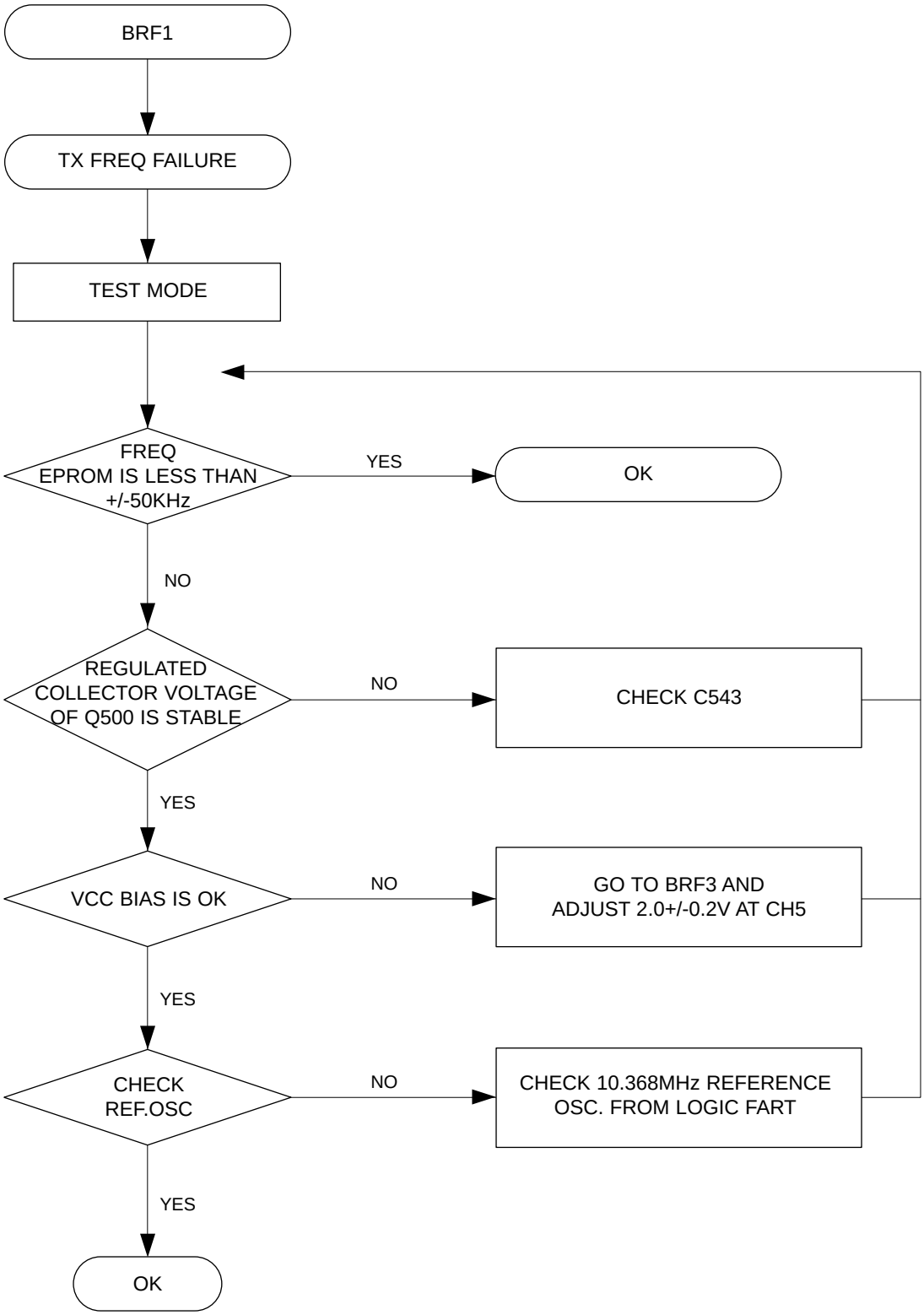
8-3-9 Tx Audio Failure

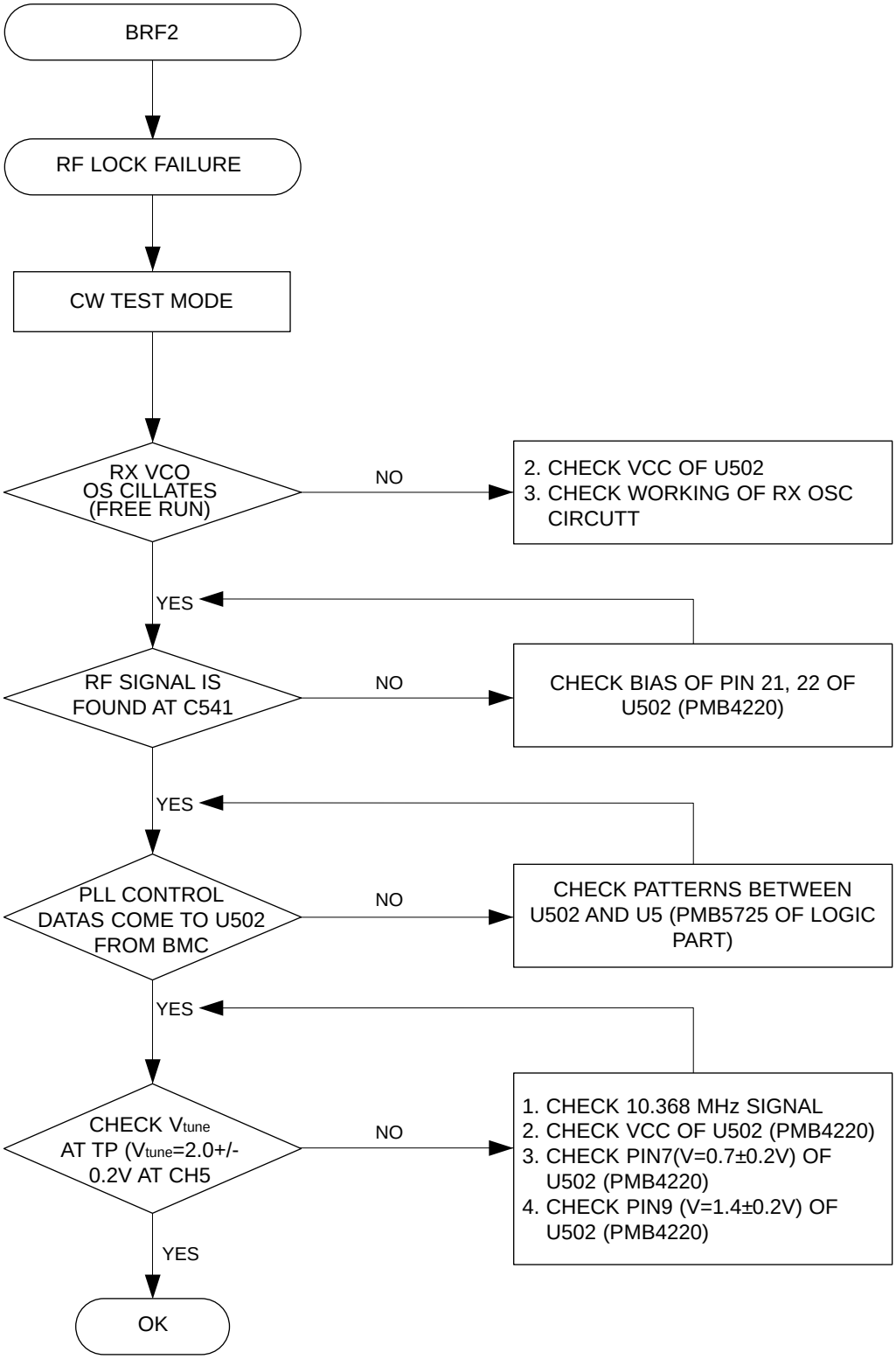



BL10
RX AUDIO FAILURE
AF SIGNAL CAN BE FOUND AT COLLECTOR OF Q1
NO
GO TO BL5
YES
AF SIGAL CAN BE FOUND AT PIN92 OF U5
NO
CHECK C54, R86, R97, R80
YES
OK

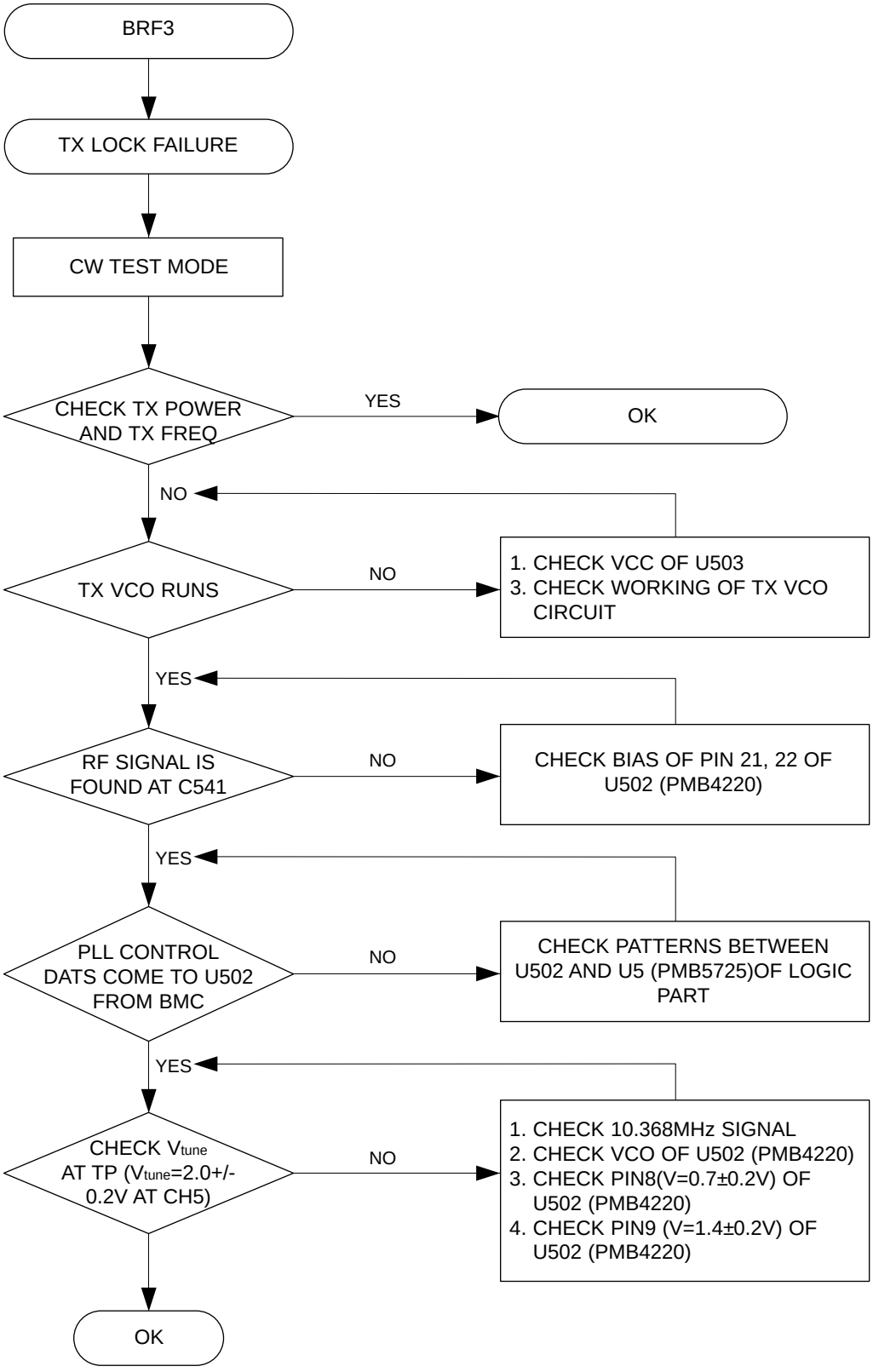
8-4 Trouble Shooting of Baseset RF Part

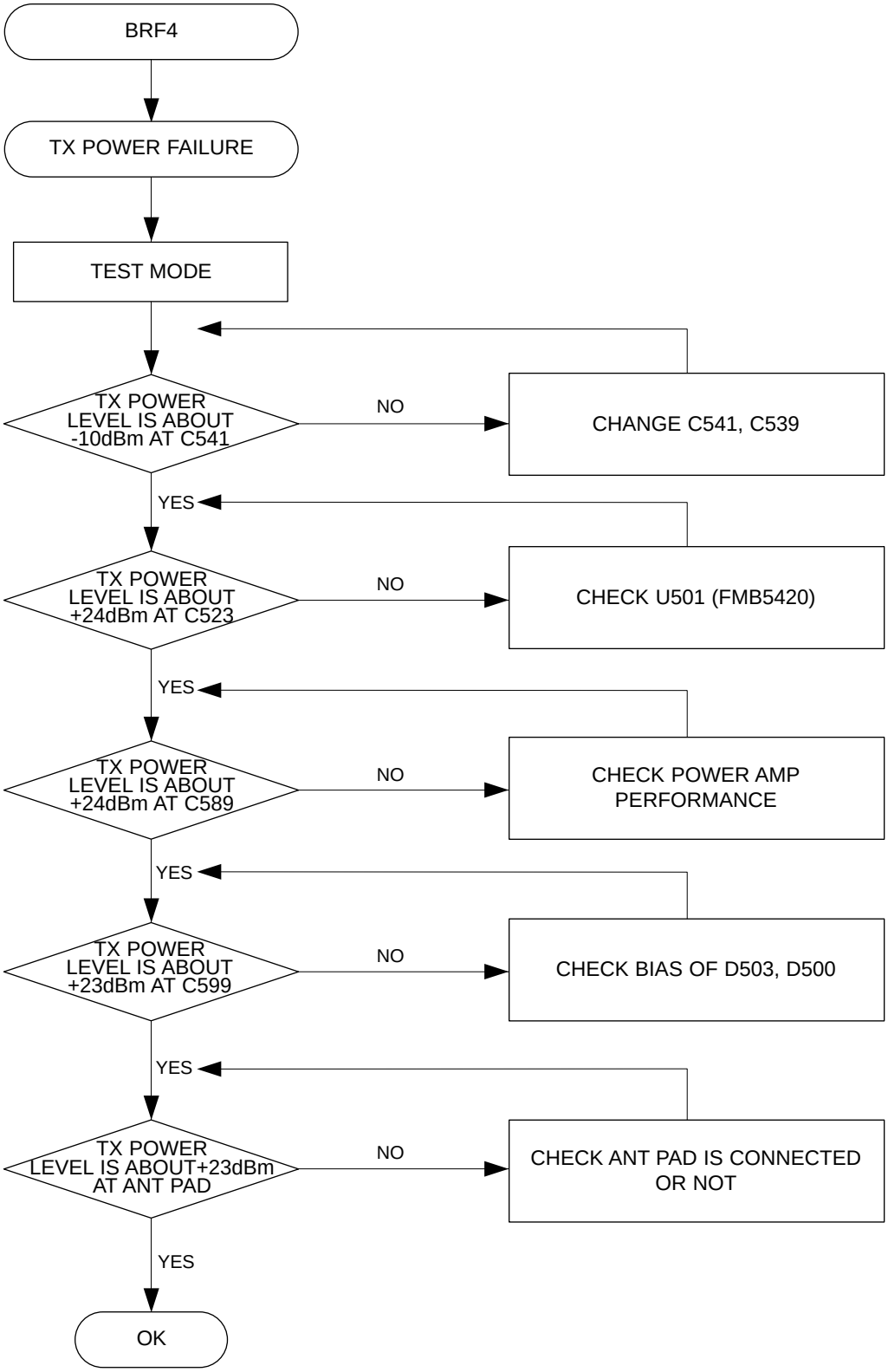
8-4-1 Tx Freq Failure



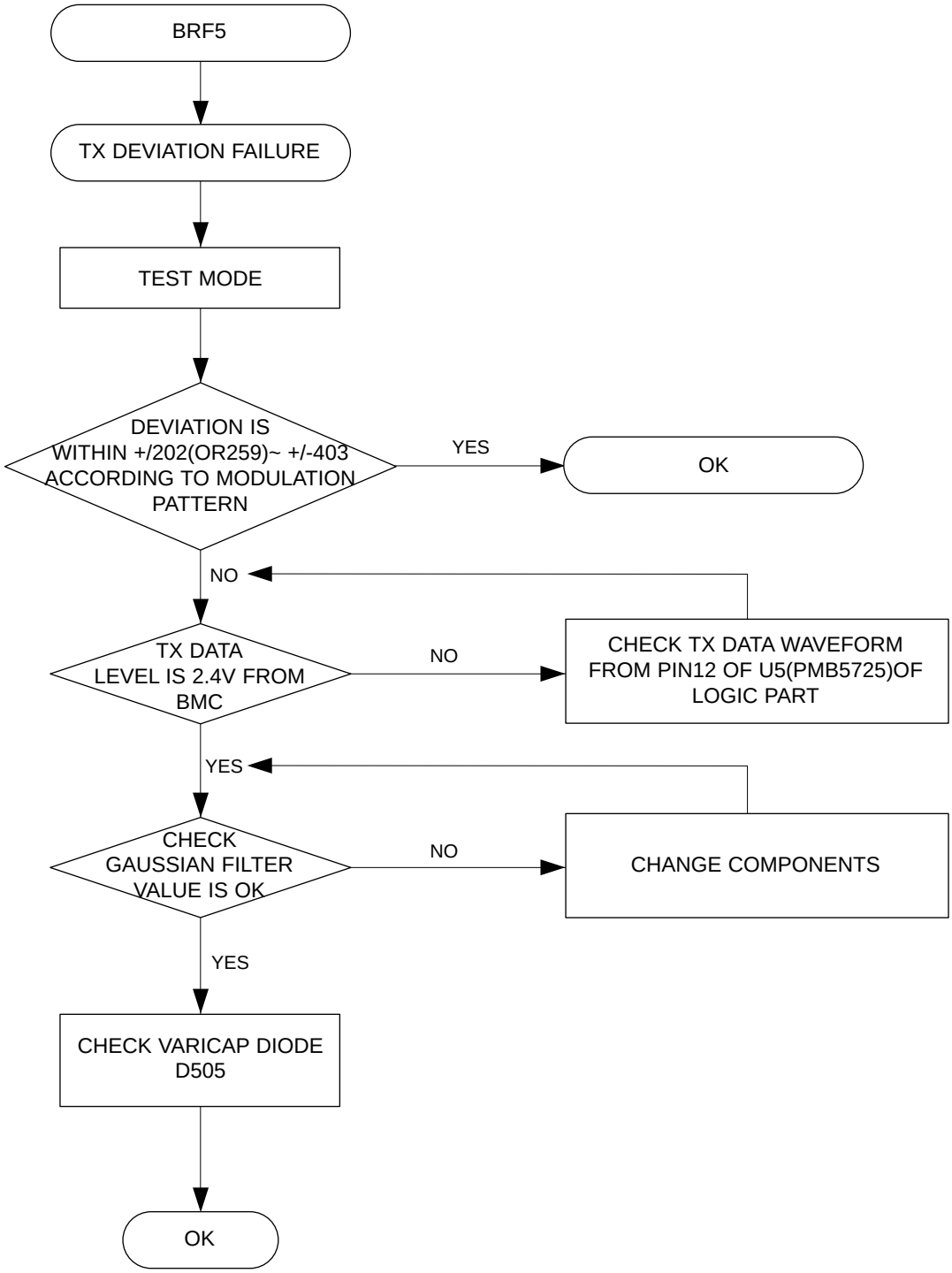

BRF2
RF LOCK FAILURE
CW TEST MODE
RX VCO OS CILLATES (FREE RUN)
NO
2. CHECK VCC OF U502
3. CHECK WORKING OF RX OSC CIRCUTT
YES
RF SIGNAL IS FOUND AT C541
NO
CHECK BIAS OF PIN 21, 22 OF U502 (PMB4220)
YES
PLL CONTROL DATAS COME TO U502 FROM BMC
NO
CHECK PATTERNS BETWEEN U502 AND U5 (PMB5725 OF LOGIC PART)
YES
CHECK Vtune AT TP (Vtune=2.0+/- 0.2V AT CH5
NO
1. CHECK 10.368 MHz SIGNAL
2. CHECK VCC OF U502 (PMB4220)
3. CHECK PIN7(V=0.7±0.2V) OF U502 (PMB4220)
4. CHECK PIN9 (V=1.4±0.2V) OF U502 (PMB4220)
YES
OK

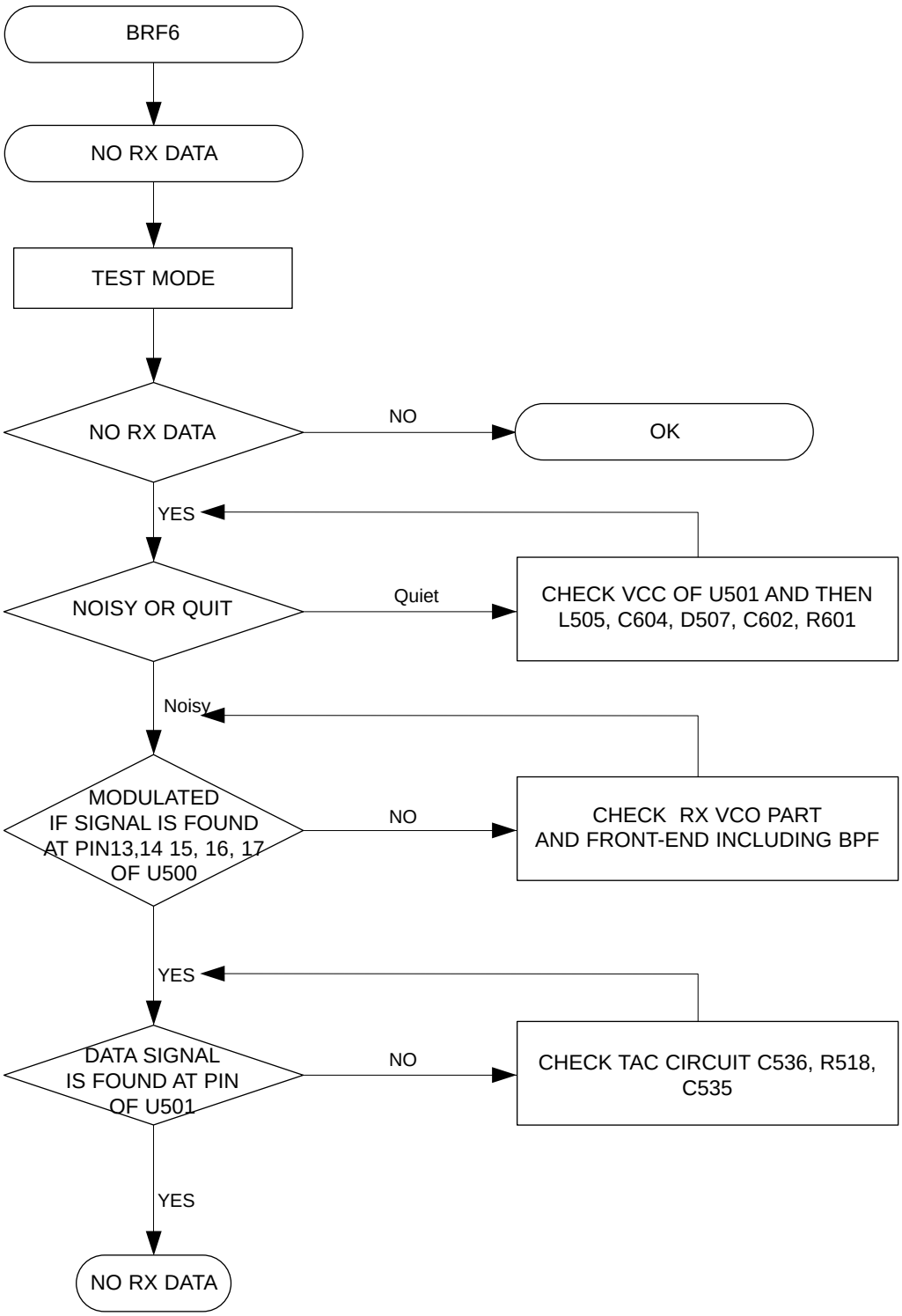
8-4-3 Tx Lock Failure

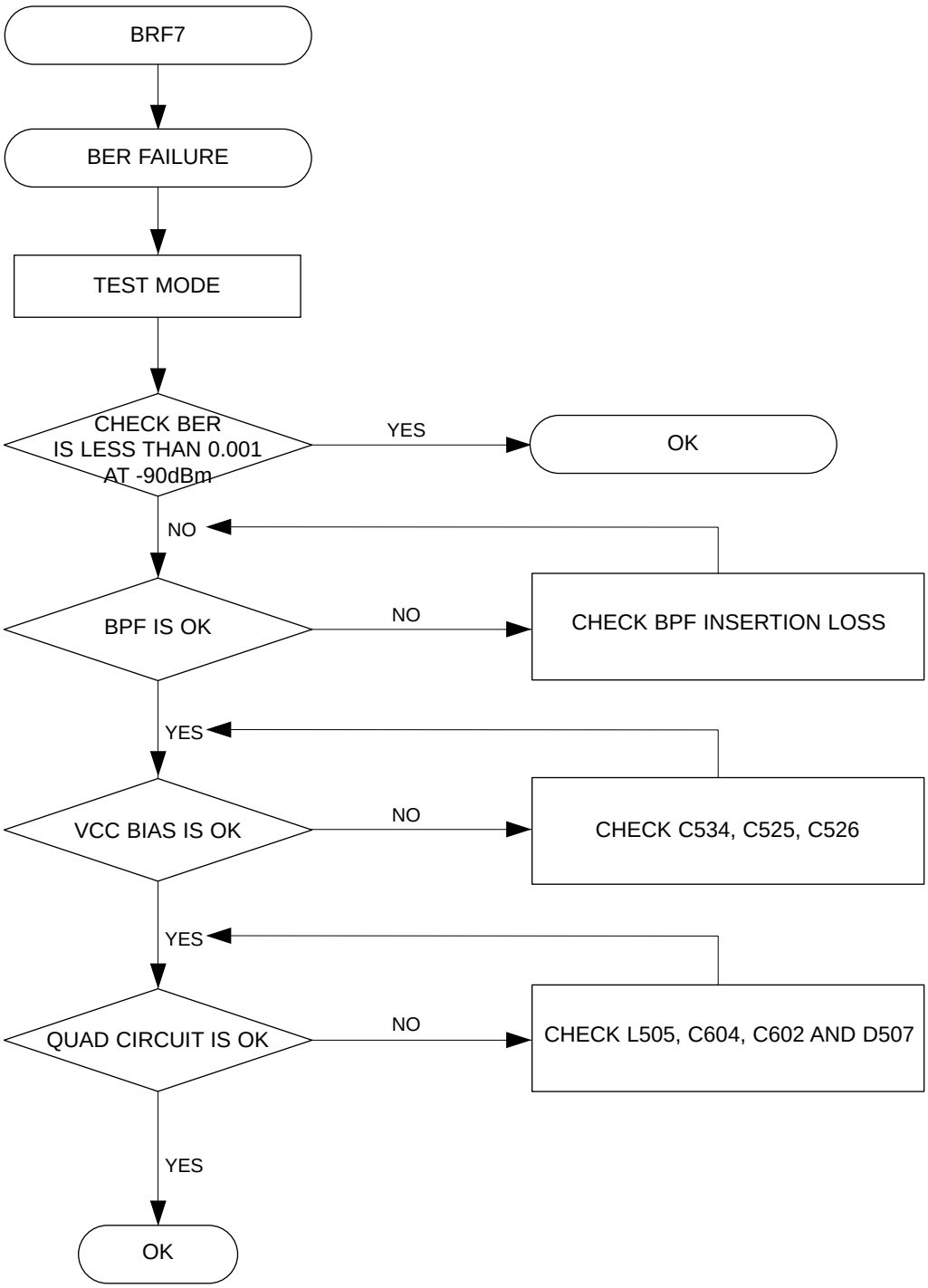



BRF4
TX POWER FAILURE
TEST MODE
TX POWER LEVEL IS ABOUT -10dBm AT C541
NO
CHANGE C541, C539
YES
TX POWER LEVEL IS ABOUT +24dBm AT C523
NO
CHECK U501 (FMB5420)
YES
TX POWER LEVEL IS ABOUT +24dBm AT C589
NO
CHECK POWER AMP PERFORMANCE
YES
TX POWER LEVEL IS ABOUT +23dBm AT C599
NO
CHECK BIAS OF D503, D500
YES
TX POWER LEVEL IS ABOUT+23dBm AT ANT PAD
NO
CHECK ANT PAD IS CONNECTED OR NOT
YES
OK

8-4-5 Tx Deviation Failure




BRF6
NO RX DATA
TEST MODE
NO RX DATA
NO
OK
YES
NOISY OR QUIT
Quiet
CHECK VCC OF U501 AND THEN
L505, C604, D507, C602, R601
Noisy
MODULATED
IF SIGNAL IS FOUND
AT PIN13,14 15, 16, 17
OF U500
NO
CHECK RX VCO PART
AND FRONT-END INCLUDING BPF
YES
DATA SIGNAL
IS FOUND AT PIN
OF U501
NO
CHECK TAC CIRCUIT C536, R518,
C535
YES
NO RX DATA


BRF7
BER FAILURE
TEST MODE
CHECK BER
IS LESS THAN 0.001
AT -90dBm
YES
OK
NO
BPF IS OK
NO
CHECK BPF INSERTION LOSS
YES
VCC BIAS IS OK
NO
CHECK C534, C525, C526
YES
QUAD CIRCUIT IS OK
NO
CHECK L505, C604, C602 AND D507
YES
OK

9. Test Jig Usage

WHEN DO YOU USE THE DECT SERVICE JIG AND JIG PROGRAM?

Baseset Test

-You want to read / write ID of Baseset.
-You want to write national option to eeprom.
-You want to adjust CLOCK.
-You want to adjust VCO Tunning voltage.

Handset Test

-You want to read / write ID of handset.
-You want to write national option to eeprom
-You want to adjust CLOCK.
-You want to adjust VCO Tunning voltage.

HOW TO ALL CLEAR HANDSET & BASESET

◆ Take the best possible care not to open it to the user. ◆
If it is opened to the user, user can make fatal errors in his phone.

Baseset

Press and hold the paging button before power on.
At the present state, power on and hold the paging button for more than 3 seconds.
When the paging LED blinks, release the paging button.
Then press and hold again the paging button until the paging LED blinks irregulary.
EEPROM data in Baeset is all cleared except ID.
You should power on again.

Handset

Press 1,4,7,*,2,3,6,5,8,#, then handset is all cleared except ID.

HOW TO ENTER THE TEST MODE

◆ Take the best possible care not to open it to the user. ◆
If it is opened to the user, user can make fatal errors in his phone.

Baseset

Press and hold the paging button before power on.
AT the present state, power on and hold the paging button for more than 3 seconds.
When the paging LED blinks, release the paging button.
Now it is test mode.

Handset

If handset is unregistered, it is test mode.
If handset is registered, You Press 4,5,6,8,0,7,*,0,9,# continuously

HOW TO CHECK S/W VERSION & PIN NUMBER IN TEST MODE

S/W VERSION CHECK

Baseset

1. At first,handset should be registered to test Baseset before checking s/w version.
2. When handset is in TEST MODE, press down key, and you can see “base gain”
3. In base gain menu, press O.K key.
4. You can see the “Addr-” display, then enter 0013 and O.K key.
5. Handset display like that “dATA-0530”.
   0530 means base s/w version is 5.30

Handset

registered state

1. In TEST MODE, you can see “RF TEST”
2. Press O.K key.
3. You can see the handset s/w version during 1 second. (like Ver 7_0)

unregistered state

1. In power off state, Power On and press 0 within 2 seconds.
2. You can see the handset s/w version during 500msec.

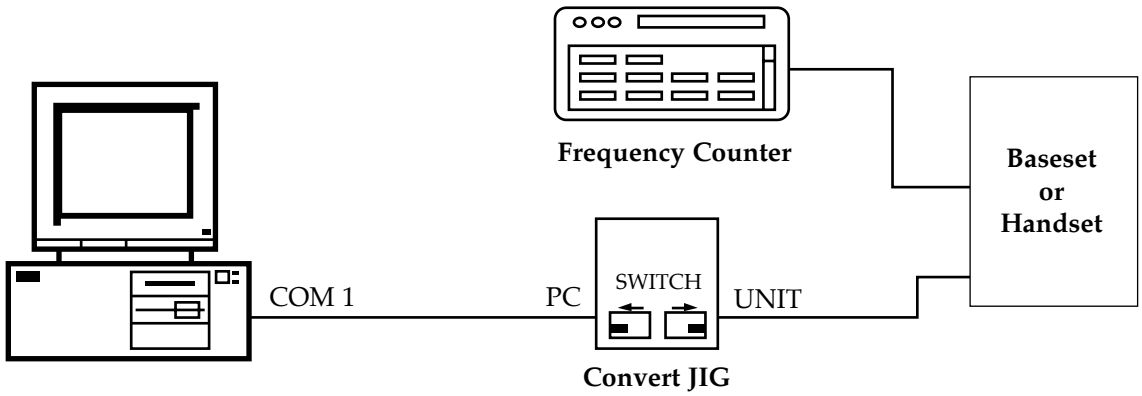
HANDSET PIN CHECK

After user has changed defalut pin number, and he forgot its PIN number.
User have no method to find its PIN Number. But You can check the changed user PIN number in test mode

1. Enter the test mode. and press up key twice.
2. You can see the View Pin menu.
3. Press OK
4. You can see the changed PIN number.

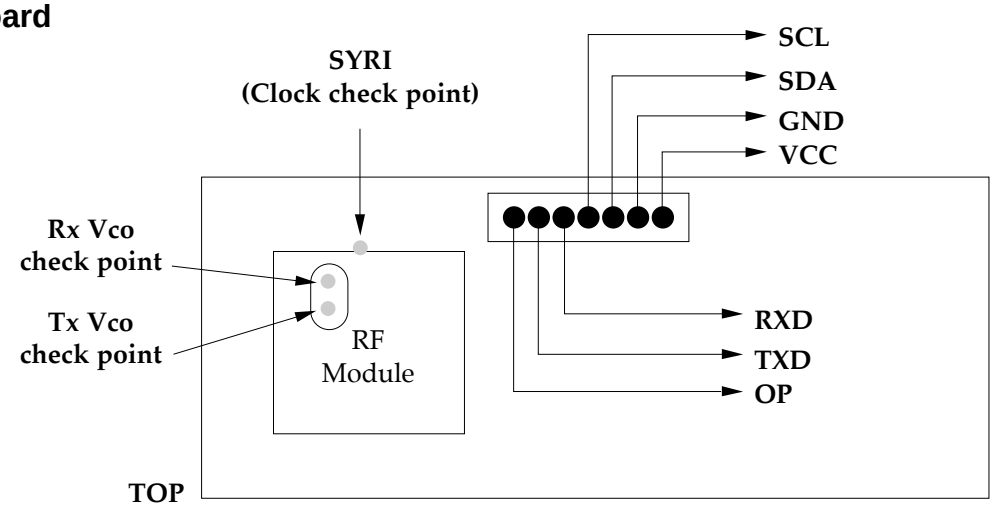
Notice :
Don’t Touch any menu in test mode except I described menu.
You can make fatal error, if you touch another menu.

HOW TO CONNECT PC, FREQUENCY COUNTER, AND CONVERTER JIG

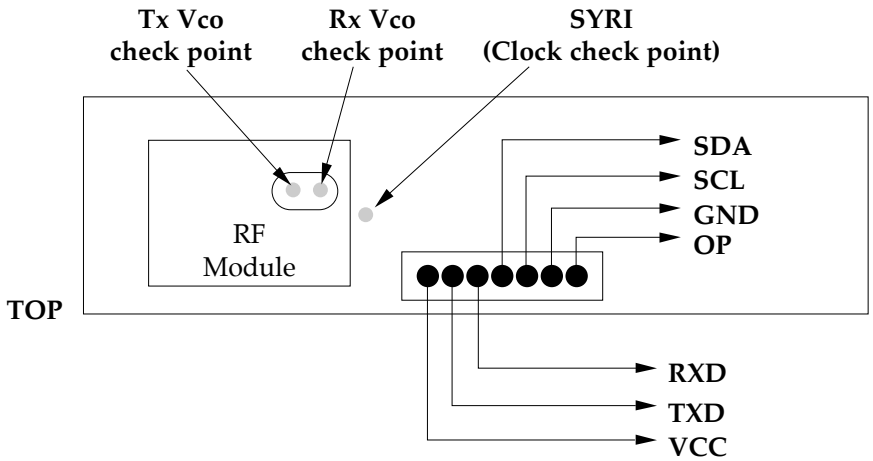


HOW TO CONNECT CONVERTER JIG AND TEST SET

Baseset Board



Handset Board



EXPLANATION OF JIG PROGRAM

HOW TO INSTALL JIG PROGRAM IN YOUR PC

1.. copy 5200jig.zip to root directory from A drive.
2. Extract 5200jig.zip
   Then 6 subdirectory is created, and some files are created in 5200jig directory.
   execution file : 5200jig.exe

HOW TO USE JIG PROGRAM

If you execute 5200jig.exe, you can see the below display.

TESTSET SELECTION

--- SET SELECTION ---
Initial Port is COM 1
Select a Board to Test:
0) Basest
1) Hanset

At the beginning, Com port is setted to COM 1.
You should choose a set which is tested using 0/1 or up/down key.
After you select a testset, press Enter.

In next display, you should select s/w version in your testset.

SELECT S/W VERSION

--- SELECT VERSION ---
0 : base(hand) version 4.8(5.4)
1 : base(hand) version 5.0(7.0)
Press the number(0/1) and then Press the Enter Key.
=> 0

After you typed the s/w version, press Enter.
Next display is to national option.

SELECT NATION

--- NATION SELECTION ---
0)U.K.(Emergency)
1)U.K.(No Emergency)
2)FRANCE
3)GERMANY
4)SPAIN
5)ITALY
6)NETHERLANDS
7)RUSSIA
8)AUSTRIA
9)GREECE

Select the Number of nation?
And then touch ENTER key.
=> 0

You should choose the nation which you want to test. and then press enter key.
Now, you are ready to test, and you can see the Main Test Screen.

TEST MAIN SCREEN

SR - R5200(DECT) BASESET v4.8	
EEPROM WRITIONG	
X-TAL ADJUSTING	
RESULT	
F1:ID READ F3:ID WRITE F5:NAT OPT F7:CLK ADJ F9:RF ALT+X:EXIT	

F1 : When you want to read Current ID(EMC Code) of TestSet

F3 : When you want to write new ID(EMC Code) of TestSet

F5 : When you want to write national option again

F7 : When you want to adjust Clock of TestSet

F9 : When you want to control RF vco voltage

ALT-X : When you want to terminate this program

In all testcases, If you see "connenction fail" message, Check next item.
- **testset you selected is identical to testset of program.**
- **COM port is connected to COM 1 (initial port is fixed to COM 1)**
- **Converter JIG Mode is setted to IIC mode**
- **testset is setted to TEST MODE**

EXECUTION DISPLAY

F 1 : ID READ

SR - R5200(DECT) BASESET v4.8	
EEPROM WRITIONG	
READ ID: 000EC00010	Test Mode is O K!
X-TAL ADJUSTING	
RESULT	
F1:ID READ F3:ID WRITE F5:NAT OPT F7:CLK ADJ F9:RF ALT+X:EXIT	

F 3 : ID WRITE

SR - R5200(DECT) BASESET v4.8	
EEPROM WRITING	
WRITE ID: 000EC00020 WRITTEN ID: 000EC00020	Test Mode is O K! BASE ID is Written
X-TAL ADJUSTING	
RESULT	
F1:ID READ F3:ID WRITE F5:NAT OPT F7:CLK ADJ F9:RF ALT+X:EXIT	

*** You must enter full 10digits.**
*** First 5 digits are fixed EMC Code which is granted by ETSI.**
(000EC,00198,00199,0019A,0019B)
*** Valid input value in Last 5 digits :**
Baseset : 00000(8)~FFFF0(8), Last digit always must be 0 or 8.
Handset : 00000~FFFFF

F 5 : NATIONAL OPTION WRITE

SR - R5200(DECT) BASESET v4.8	
EEPROM WRITIONG	
	Test Mode is O K! EEP initial data is written !
X-TAL ADJUSTING	
RESULT	
F1:ID READ F3:ID WRITE F5:NAT OPT F7:CLK ADJ F9:RF ALT+X:EXIT	

*** In this testcase, If you have error message like "EEP initial data is failed", You should check s/w version of testset because each version has different checksum data.**

F 7 : CLOCK SETTING

SR - R5200(DECT) BASESET v4.8	
EEPROM WRITIONG	
X-TAL ADJUSTING	
Current Value : 1C	Adjust Value : 1F
RESULT	
F1:ID READ F3:ID WRITE F5:NAT OPT F7:CLK ADJ F9:RF ALT+X:EXIT	

*** If clock frequency is higher than reference clock(10.368000Mhz), enter the lower value than Current Value at Adjust Value.**
On the contrary, if it is lower than reference clock, enter the higher value than Current Value at Adjust Value. (Valid Adjust Value : 00~FF)

F 9 : RF VCO TUNNING

SR - R5200(DECT) BASESET v4.8
TX CW MODE
TX VCO ADJUSTING O. K !!!
RX CW MODE
RX VCO ADJUSTING O. K !!!
RESULT
F1:ID READ F3:ID WRITE F5:NAT OPT F7:CLK ADJ F9:RF ALT+X:EXIT

*** When testcase is TX CW MODE, you csn see "TX VOC ADJUSTING...", and adjust TX VOC voltage to 2V. RX CW MODE has same process like TX CW MODE.**